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ABSTRACT

A study was conducted to determine how prepared recent vocational teacher education graduates consider themselves to be in teaching eight groups of exceptional students in regular vocational education classes. The 2,091 participants were 1981 graduates of vocational teacher education programs in 29 states. About 52 percent of these teacher graduates returned a mailed questionnaire about how prepared they felt themselves to be to perform 16 professional tasks for exceptional students. (Exceptional students were defined as physically and/or sensory impaired, mentally retarded, gifted and talented, limited English speaking, economically disadvantaged, racial/ethnic minority group members, those enrolled in programs nontraditional for their sex, and adults who are retraining.) It was found that the graduates were not uniformly prepared for teaching exceptional students, especially students with limited English proficiency and adults. It was also found that many of the graduates were unprepared for program evaluation, and few had significant contact with exceptional persons. Finally, only about half of the students had been required to take courses relevant to teaching exceptional persons. Recommendations were made for changes in teacher preparation programs to remedy these deficits. It was also recommended that schools conduct periodic needs assessments of their programs to determine such deficits and to alter their programs. (The study cautioned that a majority of responders were white, female, home economics graduates, which may limit the study's results.) (KC)

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THE SELF-REPORTED PREPARATION OF RECENT VOCATIONAL TEACHER EDUCATION GRADUATES TO INSTRUCT EXCEPTIONAL STUDENTS

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TABLE OF CONTENTS

Page

LIST OF TABLES . . . v

LIST OF FIGURES . . . vii

FOREWORD . . . ix

EXECUTIVE SUMMARY. . . . xi

I. INTRODUCTION . . . 3

- The Need for Special Teacher Training. . . . 3
- Identification of Competencies . . . 5

II. METHODOLOGY. . . . 9

- Target Population . . . 9
- Sampling Procedures. . . . 9
- Description of the Sample. . . . 9
- Instrument Development . . . 12
- Administration of the Instrument . . . 14
- Description of Respondents . . . 14

III. RESULTS OF THE STUDY . . . 23

- Major Findings . . . 23
- Elaboration on Section II Responses . . . 25
- Elaboration on Section III Responses . . . 37

IV. CONCLUSIONS AND RECOMMENDATIONS. . . . 41

REFERENCES . . . 43

APPENDIX A - Equity Skills Survey. . . . 45

APPENDIX B - Identified and Verified Teacher Competencies for Delivering Nondiscriminatory Instruction . . . 55

APPENDIX C - Tables (1-C through 16-C) that Report Combinations of Methods of Preparation Cited by Respondents . . . 79

APPENDIX D - Table (1-D) that Reports Results of Research Consumerism Items (Survey Section IV) . . . 113

LIST OF TABLES

Page

TABLE NO.

1. Number and Percentage of Graduates in the Sample by Region (N=2,091) 10
2. Number of Graduates in the Sample by Sex, Region, and Service Area (N=2,091). 11
3. Number and Rate of Returned and Usable Survey Instruments by Region 16
4. Number and Percentage of Respondents by Racial/Ethnic Group (n=1,092) 17
5. Number and Percentage of Respondents by Age Category (n=1,092) 17
6. Number and Percentage of Respondents by Service Area (n=1,092). 18
7. Number and Percentage of Respondents in Service Areas Nontraditional for Their Sex (n=1,092) . . . 19
8. Number and Percentage of Respondents Who Reported Various Years of Secondary School Teaching Experience (n=1,092) 20
9. Number and Percentage of Respondents Who Reported Various Years of Work Experience in Occupational Areas in Which They Were Certified to Teach (n=1,092) 20
10. Number and Percentage of Respondents Prepared to Do Tasks for Exceptional Students (n=1,092) . . 26
11. Groups for Whom the Most and Fewest Respondents Were Prepared to Do Tasks 27
12. Number and Percentage of Respondents Not Prepared to Do Particular Tasks for Any Exceptional Group (n=1,092) 32
13. Number and Percentage of Respondents Prepared to Do Nine or More Tasks for a Group of Exceptional Students (n=1,092). 33
14. Number and Percentage of Respondents Not Prepared to Do Any Task for a Group of Exceptional Students (n=1,092). 35

TABLE NO. Page

15. Order of Frequency with Which Respondents Cited Methods of Preparation. 36

16. Number and Percentage of Respondents Who Reported Personal and/or Professional Contact with Exceptional People (n=1,092). 38

LIST OF FIGURES

Figure No. Page

1. Portion of equity skills survey instrument . . . 13

2. Percentage of respondents prepared to perform tasks for gifted and talented students 28

3. Percentage of respondents prepared to perform tasks for mentally retarded students 28

4. Percentage of respondents prepared to perform tasks for physically impaired students 29

5. Percentage of respondents prepared to perform tasks for limited english proficiency students . 29

6. Percentage of respondents prepared to perform tasks for economically disadvantaged students. . 30

7. Percentage of respondents prepared to perform tasks for racial/ethnic minority students . . . 30

8. Percentage of respondents prepared to perform tasks for adults in retraining 31

9. Percentage of respondents prepared to perform tasks for students enrolled in programs nontraditional for their sex 31

FOREWORD

Legislation and social change have increased vocational educators' obligation to make certain their programs are accessible, accommodating, and fair to all students. In response, efforts both to identify and teach the teacher skills necessary to meet the instructional needs of exceptional students have been undertaken in recent years. The study reported in this document describes how prepared its participants consider themselves to teach eight groups of exceptional students in "regular" vocational classes. The participants were spring 1981 graduates of vocational teacher education programs in twenty-nine states.

In addition to the authors, the National Center is indebted to the individuals who served on the study's technical panel and to those who reviewed this document. The technical panel was composed of Gary McLean, University of Minnesota; Ruth Brown, Maryland State Department of Education; Allen Phelps, University of Illinois; and Mary Frasier, University of Georgia. Those who reviewed this research report were Iva Dean Cook, West Virginia College of Graduate Studies; Gonzalo Garcia, Texas A & M University; John Boulmetis, University of Rhode Island; and Frank Pratzner, Robert Bhaerman, and Kay Adams, all of the National Center. Special thanks go to Lucille Campbell Thrane, director of the division in which this study was conducted. Jeanne Thomas' excellent typing of the report is also appreciated, as is Connie Faddis' editing.

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EXECUTIVE SUMMARY

Background

Legislation and social changes of the last decade have contributed to changes in the population traditionally served by so-called "regular" vocational education classes and teachers. For instance, some handicapped students who would have been expected to attend special education classes are now enrolled in regular vocational education programs as a result of the Education for All Handicapped Children Act enacted in 1975. Inflation, new technology, and new attitudes regarding the elderly have encouraged older Americans to enroll in vocational classes. Previously, they would probably have been considered (and would have considered themselves) too old for school. Other students are enrolling in vocational programs that are nontraditional for their sex, their enrollment guaranteed by Title II of the Education Amendments of 1976 and Title IX of the Education Amendments of 1972.

Vocational teachers are expected to teach these and other students whose instructional needs may well be different from those of more traditional vocational students. For the purpose of the study described here, those exceptional students are considered to be--

- the physically and/or sensory impaired,
- the mentally retarded,
- the gifted and talented,
- those who have limited proficiency with English,
- the economically disadvantaged,
- racial/ethnic minority group members,
- those enrolled in programs nontraditional for their sex,
- adults (such as older Americans, mid-life career changers, and displaced homemakers) who are enrolled for retraining.

Although the term "mainstreaming" is generally applied only to the enrollment of handicapped students in regular classes, one may say that all of these students are being mainstreamed. Consequently, many vocational education teachers, regardless of their teacher preparation, can expect to teach them.

Just how well prepared to teach these exceptional students do graduates of vocational teacher education programs consider themselves to be? This survey research study attempted to answer that important question.

The information provided by the study should be helpful to those who evaluate preservice teacher education programs, to those who plan and install new components in such programs, and to those at the federal, state, and local levels who plan inservice teacher education programs on instructing exceptional students.

Methodology

An instrument was mailed to 2,091 individuals who had graduated in the spring of 1981 from vocational teacher education programs in seven vocational service areas. The vocational service areas were--

- agriculture education,
- distributive education (now called marketing and distribution),
- business and office education,
- trade and industrial education,
- home economics education,
- health occupations education,
- industrial arts education.

The schools whose graduates were surveyed were located in the following states: Arizona, California, Colorado, Florida, Georgia, Idaho, Illinois, Iowa, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Virginia, and Washington. The results of this study can be generalized only with caution to anyone other than the target population of spring 1981 graduates of programs in these service areas in these states.

The survey instrument (given in Appendix A) asked the recent graduates questions about their demographics, about how much professional and personal contact they had had with exceptional students, and about their teacher education programs. However, the most important part of the instrument consisted of questions asking whether the graduates considered themselves prepared to perform a set of sixteen professional tasks for each of eight groups of exceptional students. Each of these sixteen tasks is considered vital to the instruction of each of the eight groups of exceptional students.

If the graduates said they were prepared to perform a task for a group of exceptional students, they were asked to indicate how they had learned to do it. They were asked whether they had learned to perform it (1) in education courses, (2) through student teaching, (3) in courses outside their major, and/or (4) through other situations, such as volunteer work.

The set of sixteen professional tasks about which the graduates were asked was the following:

Task A. Identify

Task B. Plan Instruction for

Task C. Provide Materials for

Task D. Modify the Learning Environment for

Task E. Promote Peer Acceptance of

Task F. Use Special Instructional Techniques for

Task G. Improve Your Ability to Communicate with

Task H. Improve the Communication Skills of

Task I. Assess the Progress of

Task J. Counsel Students with Personal-Social Problems

Task K. Develop the Career Planning Skills of

Task L. Assist Students to Develop Life-Coping Skills

Task M. Prepare Students for Employability

Task N. Evaluate a Program to Determine Its Effectiveness in Serving

Task O. Promote Your Program to Attract/Recruit

Task P. Continue Your Professional Development Relative to Teaching

The professional tasks were the titles of clusters of 380 vital teacher competencies identified through a DACUM process (Developing a Curriculum) which had been conducted by a previous project at the National Center for Research in Vocational

Education. These teacher competencies or skills were identified and verified by approximately 150 vocational practitioners who were experienced and expert at teaching exceptional students in regular secondary and postsecondary vocational classes and laboratories. The competencies are considered to be the skills vocational teachers must have to be able to do a good job of teaching exceptional students.

Results

About 52 percent (1,092) of the graduates to whom the instruments were mailed responded with usable information. Nearly all of the respondents (93%) were white, 57 percent were female, and 81 percent of them were between the ages of eighteen and twenty-nine. More respondents (29%) were certified to teach home economics than any other service area.

Most of the respondents indicated they did not have secondary school teaching experience, excluding student teaching, in either vocational education (77%) or non-vocational education (88%). More often they reported experience in business or industry than experience in secondary school teaching. More than half (53%) of the respondents reported that they had accepted teaching positions for the 1981-82 school year.

The respondents had 128 opportunities on the survey instrument to indicate whether they were prepared to perform a task for a group of exceptional students (16 professional tasks X 8 groups of exceptional students). In 104 of those opportunities, half or more than half of the respondents indicated that they were prepared to perform the task for the group of exceptional students. In most of the 24 instances in which fewer than half of the respondents considered themselves prepared to perform a task, the item pertained to preparation to do a task for two groups. Those two groups of exceptional students were adults in retraining and limited English proficiency students. The lack of preparation to do the tasks for those two groups of exceptional students was a consistent finding of the study.

More than 48 percent of the respondents said that they were prepared to do at least nine of the sixteen professional tasks for all groups of exceptional students.

For ten of the sixteen professional tasks, the group for which the most respondents reported they were prepared to do a task was economically disadvantaged students. (Those tasks were C, G, H, I, J, K, M, N, O, and P.) For three of the tasks, the group for whom the most respondents were prepared was gifted and talented students. (Those tasks were B, F, and L.) The most respondents were prepared to perform two of the tasks for physically or sensory impaired students. (Those tasks were D and E.)

Respondents were most often prepared to perform Task A for racial/ethnic minority students.

For each group of exceptional students, the highest percentage of prepared respondents consistently reported preparation to perform Tasks A (Identify) and G (Improve Your Ability to Communicate With). More than 27 percent of the respondents reported that they were not prepared to do two tasks for any group of exceptional students. Those were Task N (Evaluate a Program to Determine Its Effectiveness in Serving) and Task O (Promote Your Program to Attract/Recruit).

The respondents' preparation to do the professional tasks was most often obtained by taking education courses or by combining education courses with another method. This was true regardless of the professional task or the group of exceptional students for which it would be performed. Approximately 57 percent of the respondents indicated that the education methods courses they took that prepared them to teach exceptional students were required courses. About 31 percent who said they took such courses outside their major reported that these courses were required.

The respondents' contact, either personal or professional, with exceptional people appears to have been rather limited. "Frequent" personal contacts with exceptional people were reported by less than one-fourth of the respondents, except for contact with economically disadvantaged people (28%) and ethnic/racial minority group members (30%). Such contacts were claimed least often with mentally retarded people (11%). One-fourth to one-third of the respondents said that they had "frequent" professional contact with the economically disadvantaged, ethnic/racial minority group members, and with students enrolled in programs nontraditional for their sex. Fewer respondents cited "frequent" professional contact with people in the other exceptional groups.

From 81 to 88 percent of the respondents said that they had learned about three relevant pieces of federal legislation in their education courses. The legislation, all of which concerns vocational education's responsibility to three groups of exceptional students, was Title IX of the Education Amendments of 1972, the Education for All Handicapped Children Act of 1975, and Section 504 of the Rehabilitation Act of 1973. The three groups protected by this legislation are the physically impaired, the mentally retarded, and students enrolled in programs nontraditional for their sex.

The respondents were also asked to indicate what kinds of courses they had taken outside their major areas. The options they were given were: ethnic/racial minority history courses, women's studies courses, linguistics and/or foreign language courses, legislation/law courses relating to exceptional persons courses, legislation/law courses relating to exceptional persons in education, and "other." The "other" category received more responses than any other category, with 16 percent of the respondents citing it. More graduates (12%) said they had been enrolled in legislation/law courses relating to exceptional persons in education than had been enrolled in the other specific options listed.

Conclusions and Recommendations

The conclusions and recommendations made on the basis of this study should be considered in light of the study's limitations. One should not forget that the respondents were mostly white and female, and that graduates certified to teach home economics were represented in far greater numbers than were those certified to teach other service areas. It cannot be assumed that these characteristics reflect the target population of recent graduates. In addition, the study suffered from the limitations of any self-report method of data gathering and of any method in which individuals "self-select" themselves to be participants. The states involved in the study were also not selected at random. The results, therefore, can be generalized only with caution to those outside the target population of spring, 1981 graduates of vocational teacher education programs in the seven service areas in the twenty-nine selected states.

The conclusions and recommendations that are made in the following paragraphs are presented in the hopes that they will be helpful to professionals who plan, install, or evaluate preservice and inservice teacher education programs.

1. As demonstrated by the findings presented in this study, those who are beginning their vocational teaching careers are not uniformly prepared to teach exceptional students. It is recommended that schools and school districts assess their beginning teachers' preparedness to teach exceptional students and then provide appropriate inservice instruction called for by that assessment.

2. The findings reported here have revealed that the recent teacher education graduates seemed consistently unprepared to teach two groups of exceptional students. Those groups were students with limited English proficiency and adults enrolled for retraining. These results regarding limited English proficiency students are surprising since several states in the sample (such as Florida, New York, and California) have had large numbers of people whose native languages have not been English. The findings regarding the recent graduates' lack of preparedness to teach adults enrolled for retraining are of particular importance in view of the increasing shift to an older American population for the foreseeable future. In addition, these findings are important in view of the increasing numbers of adults who are

enrolling for retraining because their jobs have been displaced due to technological change or because job opportunities are shifting from older, failing industries to new industries and occupations. It is recommended that preservice teacher education providers make a special effort to prepare their graduates to meet the needs of students with limited proficiency with English and adults enrolled for retraining.

3. More than one-fourth of the recent graduates involved in this study reported they were unprepared to perform Task N (Evaluate a Program to Determine Its Effectiveness in Serving) for any group of exceptional students. At the same time, only 10 percent of the respondents said they could not perform Task I, which involves the evaluation of individuals, for any group. Apparently, the recent graduates did not learn about the connections between student and program evaluation. It is recommended that teacher educators provide instruction in the area of evaluating vocational programs to determine effectiveness in serving a wide range of exceptional students. This instruction should be provided in connection with instruction on evaluating the progress of individual students.

4. The respondents in this study made it clear that taking education courses was the method by which they most often prepared to teach exceptional students. Nonetheless, only about 57 percent said they were required to take education courses relevant to teaching exceptional students. It is recommended that information on the teaching of exceptional students be integrated into regular education "methods" courses, and that these courses and others relevant to exceptional students be designated as required courses.

5. Questions regarding the recent graduates' contact with exceptional people revealed only limited contact. Teacher educators apparently cannot rely on their students' experiences with exceptional people to contribute much to the students' eventual ability to teach exceptional students. This study offers evidence of at least one problem resulting from this lack of contact. More than one-fourth of the recent teacher education graduates considered themselves unprepared to perform Task O (Promote Your Program to Attract/Recruit) for any group of exceptional students. Recruitment is to a large extent a natural product of belief in the value of a program and personal interest in potential students known personally by the teacher or referred by colleagues. Since the respondents reported only limited contact with exceptional people, it is not surprising that they also reported they cannot recruit them. It is recommended that teacher educators require (or at least reward with credit hour incentives) a certain amount of interaction between their students and exceptional people and between their students and agencies that serve exceptional people.

THE SELF-REPORTED PREPARATION OF RECENT VOCATIONAL TEACHER EDUCATION GRADUATES TO INSTRUCT EXCEPTIONAL STUDENTS

I. INTRODUCTION

The Need for Special Teacher Training

The study reported in this document was made necesary by the increasing demand that vocational teachers meet the needs of a changing population. Social and technological change has led to a growing awareness of and sensitivity to the needs of people previously ignored or underserved by vocational education. Increasingly, "vocational educators are obligated to ensure that their programs are equally accessible, accommodating, and fair to all groups of students" (Hamilton and Harrington 1979, p. 1).

Among those students now are included the gifted and talented, the mentally retarded, the physically or sensory impaired, the economically disadvantaged, racial/ethnic minority group members, persons with limited English proficiency, adults requiring retraining, and students enrolled in programs nontraditional for their sex. This list of vocational students includes most of the groups with different needs that could today be found in regular vocational classrooms. The list includes not only those covered by specific legislation, such as the handicapped, but also includes groups of students, such as the gifted and talented, for whom intensive lobbying efforts have been waged (Hamilton and Harrington 1979, pp. 9, 11).

Among the laws relevant to vocational education and its responsibility to exceptional students are those listed below:

- Education Amendments of 1976, Title II (Vocational Education). Among other things, this act: (1) enables states to use federal money to develop programs to overcome sex bias, stereotyping, and discrimination in vocational education (Vetter and Peterson 1978, pp. 25-26); (2) provides for remedial programs to address the educational deficiencies of economically disadvantaged persons (Cohen et al. 1981, p. 36); (3) requires that states use money for vocational programs for displaced homemakers (Vetter and Peterson 1978, p. 27); (4) provides for bilingual instructional materials, methods, techniques, and programs (Cohen et al. 1981, p. 44); and (5) requires that public vocational schools form local advisory councils that include ethnic/racial minority group members in proportions appropriate for the geographic area represented (Cohen et al. 1981, p. 72).

- Education for All Handicapped Children Act of 1975. Among other things, this act requires that all handicapped persons between the ages of three and twenty-one be provided free public education in the least restrictive appropriate environment (Tindall 1978, p. 26, and Rumble 1978, p. 132).

- Section 504 of the Rehabilitation Act of 1973. Among other things, this legislation requires the development/use of supplemental or remedial instructional programs to meet the needs of the handicapped (Cohen et al. 1981, p. 22).

Such legislation has given impetus to the establishment of new vocational programs and the modification of traditional ones in order to address the needs of exceptional students. Many vocational educators have viewed the adaptation of traditional programs and establishment of new ones as part of their responsibility and commitment. For instance, Vetter and Peterson (1978) and Bottoms (1978) have regarded such efforts as opportunities for vocational education to take the leadership in extending equal educational opportunity to all people.

On behalf of elderly Americans, Boulmetis (1981, p. 47) has advocated that vocational education change its orientation from preparation to continuation and from youth to agelessness. McKinney has reminded vocational education teachers and counselors that they "may very well be the links and catalysts for many handicapped students to experience, for the first time, free educational opportunities in the least restrictive environment" (1978, p. 11).

As plans for the implementation of essential program changes have been made, vocational educators have increasingly recognized the fact that teachers who were to meet the special needs of their students would need special training themselves. As McKinney noted, in 1978 (p. 11), preservice education of prospective teachers of the handicapped was falling short of meeting the immediate needs of the field. Sheppard (1978; 1979) also called for the training of vocational teachers to serve the elderly.

According to Tindall, "Vocational teachers at both secondary and postsecondary levels must be prepared to modify courses for all kinds of handicapped students. This means changes in instructional methods, teaching techniques, and materials" (1978, p. 29). In addition, Tindall advocated that certification to teach vocational courses to handicapped students be initiated on a nationwide basis.

Identification of Competencies

Such preservice and inservice teacher training has begun in institutions across the country. One effort to provide appropriate teacher training materials was conducted by the National Center for Research in Vocational Education. The three-year project, Development of Performance-Based Teacher Education Modules for Nondiscriminatory Instruction, was begun in 1978. The resulting materials consist of thirteen performance-based modules designed to teach the teacher competencies (skills) identified and verified as being vital to the instruction of exceptional students. Because these competencies formed the basis of the Equity Skills Survey used in the study described in this document, the process by which they were identified deserves discussion here.

A comprehensive literature search of studies related to the module development project was conducted. (Citations for twenty competency identification efforts appear in Hamilton and Harrington 1979.) That search of the teacher competency literature revealed the following findings (Hamilton and Harrington 1979, pp. 5 and 7):

- Prior to 1975, there was little in the literature related to the training of vocational teachers to deal with special populations. What existed was training of: (1) special education teachers to incorporate vocational (or prevocational) training into their special education programs, or (2) special coordinators to work with vocational education personnel who had students with special needs in their classes.
- Prior to 1975, there was little interest in competency identification in this area.
- Since 1975, there was a proliferation of competency-identification studies in the area of special needs, mostly those needed by vocational teachers who would be teaching separate classes for special students.
- Only recently have studies addressed the needs of the vocational teacher who has special students mainstreamed into the regular vocational classroom. This can be attributed to recent legislation concerning the provision of the least restrictive environment for students with special needs.
- The term "special needs student" has generally referred only to the physically handicapped, the disadvantaged, and the mentally retarded.

- Most competency identification efforts have been conducted at a state level and for a specific special needs group (e.g., the educable mentally retarded). Most competency lists have been adapted from previously existing lists, and many dealt with the total role of the vocational teacher rather than with the specific competencies needed for dealing with special populations.

The review of teacher competency literature revealed what the module developers considered to be problems regarding the state of the art in teacher competency identification. According to Hamilton and Harrington, those problems were:

- Competencies do not encompass those needed to serve all of the special needs groups who are showing up in regular vocational classes--adults returning for retraining (displaced homemakers, technologically displaced, mid-life career changers, ex-offenders), students enrolled in programs nontraditional for their sex, the gifted and talented, and students with limited English proficiency.
- Many of the competencies identified thus far lack the specificity needed to give direction to teacher training or for the development of teacher training materials.
- There appears to be a rather high level of duplication of competencies across the various competency listings, regardless of which special population is being addressed (1979, p. 7).

The module developers decided that their competency identification efforts would differ from those reported in the literature in the following ways:

- The project would not seek to adapt previously identified competencies.
- The competencies identified would be the skills needed by the vocational teacher to accommodate exceptional students in regular, not special, vocational classrooms.
- The competencies would be identified from a national perspective rather than a state perspective.
- The total role of the teacher would not be addressed. Instead, the competencies would focus on only those a teacher would need to do differently or, need to do to a greater degree, in order to accommodate students with special needs.

- The competency identification process would be structured to identify teacher skills that are either common across exceptional groups or unique to an exceptional group.

- The competencies would be delineated at a very detailed level of specificity so as to aid module development.

- The DACUM process would be used to identify competencies (1979, p. 7).

The DACUM (Developing a Curriculum) process was the primary method by which the competencies were identified (Hamilton et al. 1980). It is a modified brainstorming technique that involves guiding panels of expert practitioners in a task analysis of their job. DACUM operates on the principle that if you want to know how to do a job, you should ask the people who are skilled at doing the job. In this case, the expert practitioners were about seventy vocational teachers and (in a few instances) vocational teacher supervisors. Each was expert at teaching at least one of the groups of exceptional students in regular vocational classes. Each served on the one of eight DACUM panels organized to address the needs of the exceptional group they were experienced at teaching.

Where appropriate, the competencies identified by the DACUM panelists were synthesized by the module developers to increase their application across exceptional groups. In other cases, redundant competencies were eliminated. Six competencies identified from the literature were added. The competencies were then clustered into sixteen groups (e.g., Identification/Diagnosis of Students).

Eighty other vocational teachers and teacher supervisors from across the country were asked to verify the importance of the competencies in teaching exceptional students in regular vocational classes. The resulting list of identified and verified competencies numbered 380. They were used in the development of teacher training modules that have been field-tested and will be available for use in the fall of 1982.

These 380 competencies also formed the basis of the instrument used to collect data for the study of recent vocational teacher education graduates described here. (The instrument is presented as Appendix A.) The competency cluster titles became the titles of the professional tasks about which the graduates were asked. That is, graduates were asked whether they were prepared to do each professional task for each group of exceptional students. Their answers were considered a measure of their preparation to teach exceptional students in regular vocational classes. Such preparation remains important as vocational teachers continue to strive to provide education that is equally accessible, accommodating, and fair to all students.

II. METHODOLOGY

Target Population

The target population for this study was the spring 1981 graduates of teacher education programs in seven service areas in twenty-nine states. The service areas were: agriculture, distributive (now called marketing and distribution), business and office, trade and industrial, home economics, health occupations, and industrial arts education. The states whose graduates were surveyed were: Arizona, California, Colorado, Florida, Georgia, Idaho, Illinois, Iowa, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Virginia, and Washington.

Sampling Procedures

Three states from each of the ten standard federal administrative regions were selected to participate in the study, except in Region 2, where there exist only two states.

Appropriate faculty members were contacted at all teacher education institutions in the selected states, as listed in the VEPD Directory of Approved Institutions (U.S. Office of Education 1978). The faculty members were asked to provide the names and addresses of the spring 1981 graduates of their departments.

Description of the Sample

Project staff received the names and addresses of 2,091 graduates, who composed the sample for this study. Table 1 on page 10 shows the number and percentage of graduates from each region who composed the sample. As can be seen from table 1, the region from which the most names and addresses of graduates were obtained was Region 3, which in the sample is composed of Pennsylvania, Maryland, and Virginia. The single state from which the most (214, or 10.2%) names and addresses were obtained was New York. No names and addresses of graduates were received from the teacher education institutions in Nevada.

Table 2 shows how the graduates were distributed by sex, region, and service area. Of the 2,091 graduates whose names and addresses were received, 1,012 were male and 1,079 were female. Of the names and addresses received, more were of graduates of programs in the home economics service area than any other.

TABLE 1

NUMBER AND PERCENTAGE OF GRADUATES IN THE SAMPLE BY REGION (N = 2,091)

Region	Number	Percentage
1	152	7.27
2	236	11.29
3	393	18.79
4	205	9.80
5	189	9.04
6	162	7.75
7	185	8.85
8	234	11.19
9	210	10.04
10	125	5.98
Total All Regions	2,091	100.00

TABLE 2

NUMBER OF GRADUATES BY SEX, REGION, AND SERVICE AREA (N = 2,091)

Region	Sex		Service Area*							
	Male	Female	Agri-culture	Business & Office	Distrib. Educ.	Health Occup.	Home Econ.	Indus. Arts	Trade & Industry	Other**
1	103	49	12	18	2	0	19	33	0	84
2	149	87	24	5	9	3	58	118	16	3
3	173	220	43	91	25	2	97	117	11	7
4	89	116	40	35	8	12	49	36	8	17
5	91	98	38	24	18	10	50	16	12	21
6	81	81	35	6	7	17	65	18	14	0
7	60	125	23	46	1	3	79	24	0	9
8	82	152	31	41	27	1	94	25	4	11
9	131	79	40	8	2	0	42	55	0	64
10	53	72	13	15	10	0	55	23	5	4
Totals Number	1,012	1,079	299	289	109	48	608	465	70	220
Percentage of the Sample	48.40	51.60	14.30	13.82	5.21	2.30	29.08	22.24	3.35	10.52

*Service area totals for any one region may not add to the total number of graduates (male and female) reported for that region. Some graduates had been enrolled in more than one service area.

**Counted in this category are graduates whose academic programs' names did not lend themselves to being easily assigned to a service area.

Instrument Development

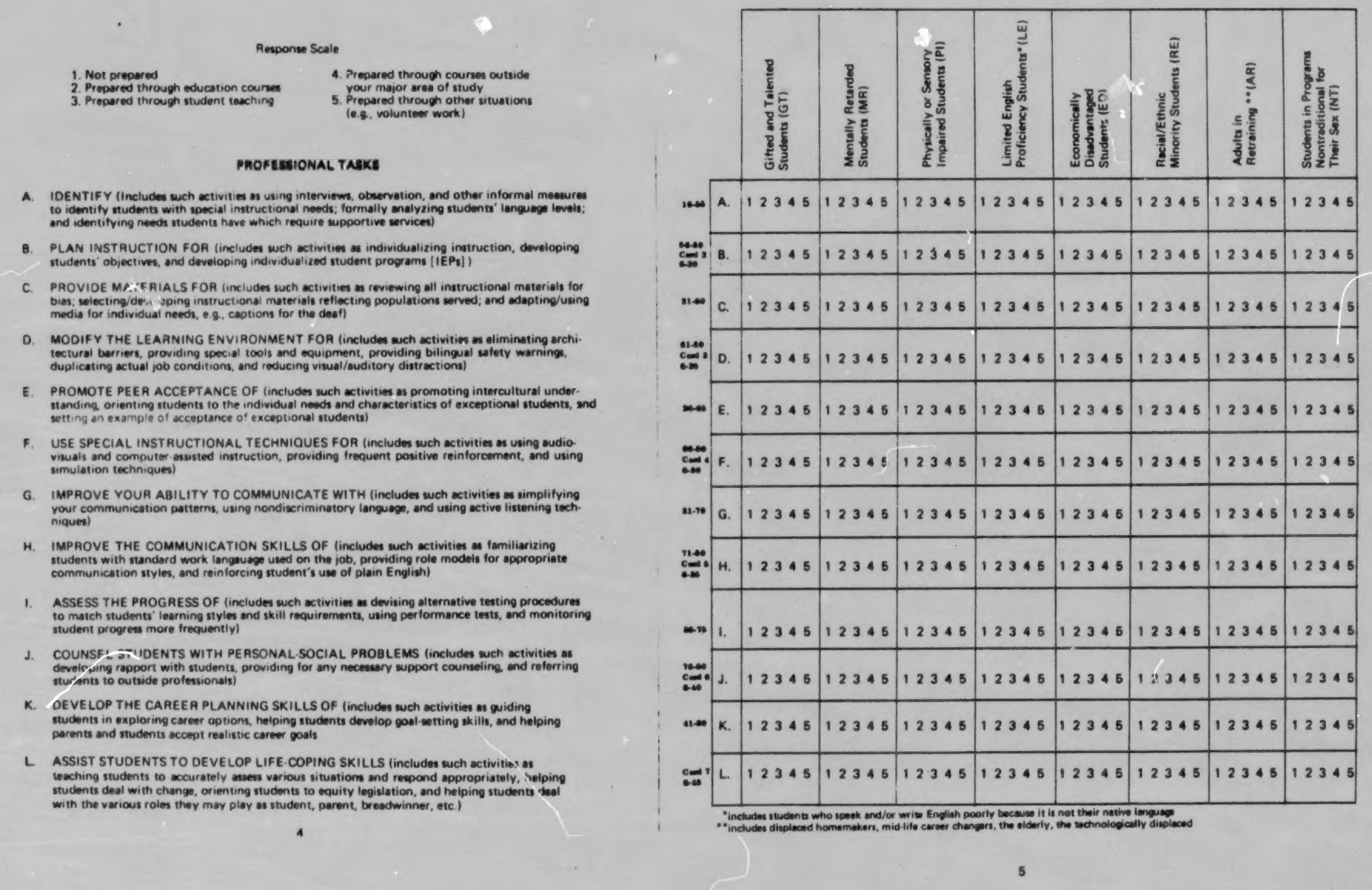
Project staff developed an instrument designed to find out whether graduates of vocational teacher education programs considered themselves to have the skills necessary to teach exceptional students. The instrument was also designed to find out the methods by which the graduates learned those skills. The term "exceptional students" was defined on the instrument as referring to gifted and talented students, mentally retarded students, physically and/or sensory impaired students, limited English proficiency students, economically disadvantaged students, racial/ethnic minority students, adults enrolled for retraining, and students enrolled in programs nontraditional for their sex.

The instrument, called the Equity Skills Survey, consisted of four sections. Section I contained demographic items useful in describing the respondents, such as their age, sex, ethnic origin, and vocational service area. Section III contained items relevant to the respondents' previous experiences, such as their years of teaching and/or work experience, the amount of personal and/or professional contact they had with exceptional persons, and whether they had college courses related to the teaching of exceptional children. Section IV consisted of three items designed to obtain information on vocational education research consumerism, the results of which may be found in Appendix D. (Appendix A contains a copy of the instrument.)

Section II was the core of the instrument. The items there were based on 380 teacher competencies/skills identified as being vital to the instruction of the target groups of exceptional students. Their identification during the conduct of a previous National Center project (Hamilton et al. 1981) is discussed in the Introduction of this document. (See Appendix B for a list of the 380 competencies.)

The sixteen items in section II were arranged in a matrix, with cluster titles of the competencies (called professional tasks) listed vertically and the groups of exceptional students listed horizontally. Representative competencies were stated on the instrument to explain and elaborate the cluster titles. The matrix arrangement allowed respondents to be asked whether they could perform each professional task for each group of exceptional students and, if so, how they had learned to perform the task. Responses were made in the "cells" of this matrix. Figure 1 shows a portion of the matrix.

In order to obtain information on how they learned their skills, respondents were given five response options in each cell of the matrix. They were asked to circle the number 1 if they could not perform a professional task for a group of students. If that number was circled, no other numbers should have been



Response Scale

1. Not prepared
2. Prepared through education courses
3. Prepared through student teaching
4. Prepared through courses outside your major area of study
5. Prepared through other situations (e.g., volunteer work)

PROFESSIONAL TASKS

A. IDENTIFY (Includes such activities as using interviews, observation, and other informal measures to identify students with special instructional needs; formally analyzing students' language levels; and identifying needs students have which require supportive services)

B. PLAN INSTRUCTION FOR (includes such activities as individualizing instruction, developing students' objectives, and developing individualized student programs [IEPs])

C. PROVIDE MATERIALS FOR (includes such activities as reviewing all instructional materials for bias; selecting/developing instructional materials reflecting populations served; and adapting/using media for individual needs, e.g., captions for the deaf)

D. MODIFY THE LEARNING ENVIRONMENT FOR (includes such activities as eliminating architectural barriers, providing special tools and equipment, providing bilingual safety warnings, duplicating actual job conditions, and reducing visual/auditory distractions)

E. PROMOTE PEER ACCEPTANCE OF (includes such activities as promoting intercultural understanding, orienting students to the individual needs and characteristics of exceptional students, and setting an example of acceptance of exceptional students)

F. USE SPECIAL INSTRUCTIONAL TECHNIQUES FOR (includes such activities as using audio-visuals and computer-assisted instruction, providing frequent positive reinforcement, and using simulation techniques)

G. IMPROVE YOUR ABILITY TO COMMUNICATE WITH (includes such activities as simplifying your communication patterns, using nondiscriminatory language, and using active listening techniques)

H. IMPROVE THE COMMUNICATION SKILLS OF (includes such activities as familiarizing students with standard work langauage used on the job, providing role models for appropriate communication styles, and reinforcing student's use of plain English)

I. ASSESS THE PROGRESS OF (includes such activities as devising alternative testing procedures to match students' learning styles and skill requirements, using performance tests, and monitoring student progress more frequently)

J. COUNSEL STUDENTS WITH PERSONAL-SOCIAL PROBLEMS (includes such activities as developing rapport with students, providing for any necessary support counseling, and referring students to outside professionals)

K. DEVELOP THE CAREER PLANNING SKILLS OF (includes such activities as guiding students in exploring career options, helping students develop goal-setting skills, and helping parents and students accept realistic career goals

L. ASSIST STUDENTS TO DEVELOP LIFE-COPING SKILLS (includes such activities as teaching students to accurately assess various situations and respond appropriately, helping students deal with change, orienting students to equity legislation, and helping students deal with the various roles they may play as student, parent, breadwinner, etc.)

4

		Gifted and Talented Students (GT)	Mentally Retarded Students (MR)	Physically or Sensory Impaired Students (PI)	Limited English Proficiency Students* (LE)	Economically Disadvantaged Students (ED)	Racial/Ethnic Minority Students (RE)	Adults in Retraining **(AR)	Students in Programs Nontraditional for Their Sex (NT)
16-55	A.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
56-80 Card 2 6-20	B.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
21-60	C.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
61-80 Card 3 6-25	D.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
26-65	E.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
66-80 Card 4 6-30	F.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
31-70	G.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
71-80 Card 5 6-35	H.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
36-75	I.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
76-80 Card 6 6-40	J.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
41-80	K.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Card 7 6-45	L.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

*includes students who speak and/or write English poorly because it is not their native language

**includes displaced homemakers, mid-life career changers, the elderly, the technologically displaced

5

FIGURE 1. PORTION OF EQUITY SKILLS SURVEY INSTRUMENT

circled in that cell of the matrix. Respondents were asked to circle the number 2 in a cell if they could perform that task for that group of students and if they had learned to do the task as the result of taking education courses, excluding student teaching. If they had learned to perform the task during a student-teaching experience, respondents were instructed to circle the number 3 in that cell. Those who had learned to perform the task through courses outside their major area of study were asked to circle the number 4 in that cell. Respondents who had learned to perform the task through situations apart from their college careers (e.g., volunteer work) were asked to circle number 5 in that cell. Respondents who did not select number 1 could have circled the numbers 2-5 or any combination of those numbers, indicating that they had learned to perform the task through one or more methods.

This instrument was developed over a period of several months, during which time several versions of the instrument were considered and pilot tested with advanced undergraduate students in various vocational service areas at The Ohio State University. The final version was also reviewed for face validity by experts within and external to the National Center. Those individuals were expert in the areas of teacher education, instrumentation, and/or teaching the groups of exceptional students.

Administration of the Instrument

A packet of survey information was mailed to every person in the sample. Each packet contained a cover letter, the instrument, an envelope with prepaid postage for returning the completed instrument, and a form to be signed by the respondents that would permit them to be considered and paid as "consultants" for the purposes of the study. Completed instruments were to be returned in about four weeks.

Each survey instrument carried a confidential identification number that was keyed by project staff to the name and address of the respondent for whom each instrument was intended. This enabled project staff to mail a check for five dollars to each respondent who returned a completed instrument and to mail a packet of follow-up information to those who did not respond by the deadline. The packet of follow-up information differed from the initial packet only in the wording of the cover letter.

Description of Respondents

A total of 1,122 persons responded to the survey instrument, which resulted in a response rate of 53.7 percent. Of those completed instruments, only 1,092 could be included in the study. (The remaining thirty instruments were not included because they were received too late, were improperly completed, or were returned by respondents who did not actually graduate from an appropriate department or in the spring of 1981.) Therefore, the response rate for usable survey instruments was 52.2 percent. Table 3 summarizes the information about numbers of returned and usable instruments.

Of the 1,092 respondents who returned usable instruments, 42.6 percent (465) were male and 57.4 percent (627) were female. Table 4 displays information about the number and percentages of usable instruments returned by respondents in various racial/ethnic groups. As can be seen on table 4, nearly all of the respondents (92.9%) were white. The next-largest racial/ethnic group responding was Blacks, who returned 31 instruments (2.8% of the useable instruments).

As can be seen from table 5, more respondents were in the eighteen to twenty-two years of age category than in any other age category--the traditional age range expected in a study of recent college graduates. Nearly as many respondents were in the twenty-three to twenty-nine years of age category. In general, the number of respondents in any one age category became smaller as the respondents became older.

Table 6 offers information on the distribution of respondents across service areas. More respondents were certified to teach home economics than to teach in any other service area (29.5%). The service area for which the next-largest group of respondents were certified was industrial arts (19%).

Less than 10 percent of the respondents were certified in service areas considered nontraditional for their sex. Those service areas considered nontraditional for males are: business and office, home economics, and health. Twenty-six male respondents were certified to teach in these service areas. The service areas considered nontraditional for females are: agriculture, trades and industry, and industrial arts. Seventy-three female respondents were certified to teach in these service areas. Table 7 gives more specific information about the respondents in service areas nontraditional for their sex.

Table 8 presents information about the respondents' teaching experience. Most of the respondents did not have secondary school teaching experience (excluding student teaching) in either vocational or nonvocational education. About 11 percent had one year of vocational teaching experience, but only about 5 percent had a year of nonvocational teaching experience. Twenty-four respondents (2.2%) reported that they had more than nine years of vocational teaching experience, but considerably fewer (3, or .3%) reported more than nine years' experience teaching other secondary school subjects.

In general, the respondents more often reported experience in business or industry than experience in secondary school

TABLE 3

NUMBER AND RATE OF RETURNED AND USABLE SURVEY INSTRUMENTS BY REGION

Region	No. Mailed	No. Returned	Return Rate	No. Unusable	No. Usable	Usable Rate
1	152	84	55.26	2	82	53.95
2	236	142	60.17	2	140	59.32
3	393	217	55.22	2	215	54.71
4	205	115	56.10	0	115	56.10
5	189	96	50.79	2	94	49.74
6	162	72	44.44	3	69	42.59
7	185	108	58.38	5	103	55.68
8	234	133	56.84	3	130	55.56
9	210	89	42.38	9	80	38.10
10	125	66	52.80	2	64	51.20
Total All Regions	2,091	1,122	53.66	30	1,092	52.22

TABLE 4

NUMBER AND PERCENTAGE OF RESPONDENTS BY RACIAL/ETHNIC GROUP (N = 1,092)

Racial/Ethnic Group	Number	Percentage of Those Who Returned Usable Instruments
White	1,014	92.86
Black	31	2.84
Hispanic	17	1.56
American Indian	8	.73
Asian	3	.27
Other	14	1.28
Missing Responses	5	.46
Total	1,092	100.00

TABLE 5

NUMBER AND PERCENTAGE OF RESPONDENTS BY AGE CATEGORY (N = 1,092)

Age in Years	Number	Percent	Cumulative Percentage
18-22	448	41.03	41.03
23-29	436	39.93	80.96
30-39	99	9.07	90.03
40-49	67	6.14	96.17
50-59	35	3.21	99.38
60-64	4	.37	99.75
Missing Responses	3	.27	
Total	1,092	100.02	100.02

TABLE 6

NUMBER AND PERCENTAGE OF RESPONDENTS BY SERVICE AREA (N = 1,092)

Service Area	Number	Percentage of Respondents
Home Economics	322	29.49
Industrial Arts	207	18.96
Business and Office	163	14.93
Agriculture	152	13.92
Trades and Industry	92	8.42
Distributive Education	44	4.03
Health Occupations	30	2.75
Combination: Distrib./Business-Office	21	1.92
Combination: Trade and Industry/ Industrial Arts	16	1.47
Other combinations	23	2.11
Other*	22	2.01
Total	1,092	100.01

*This category contains those respondents who marked one of the service areas listed as possible responses but also indicated they are certified to teach in another area outside vocational education, such as sociology or natural resources.

TABLE 7

NUMBER AND PERCENTAGE OF RESPONDENTS IN SERVICE AREAS NONTRADITIONAL FOR THEIR SEX (N = 1,092)

Service Areas	Males	Females	Percent of Service Area	Percent of Respondents of Their Sex
Agriculture		44	28.95	7.02
Business/Office	18		11.04	3.87
Health Occupations	4		13.33	.86
Home Economics	4		1.24	.86
Industrial Arts		16	7.73	2.55
Trades/Industry		13	14.13	2.07
Total	26	73		

TABLE 8

NUMBER AND PERCENTAGE OF RESPONDENTS WHO REPORTED VARIOUS YEARS OF SECONDARY SCHOOL TEACHING EXPERIENCE (N = 1,092)

Years of Experience	Respondents With Experience Teaching Vocational	 Nonvocational
0	842 (77.11%)	962 (88.10%)
1-3	141 (12.91%)	65 (5.95%)
4-6	29 (2.66%)	4 (0.37%)
7-9	20 (1.83%)	0
More than 9	24 (2.20%)	3 (0.27%)
Missing Responses	36 (3.30%)	58 (5.31%)
Total	1,092 (99.99%)	1,092 (100.00%)

TABLE 9

NUMBER AND PERCENTAGE OF RESPONDENTS WHO REPORTED VARIOUS YEARS OF WORK EXPERIENCE IN OCCUPATIONAL AREAS THEY WERE CERTIFIED TO TEACH (N = 1,092)

Years of Experience	No. of Respondents	Percentage of Respondents
0	372	34.07
1-3	303	27.75
4-6	175	16.03
7-9	58	5.31
More than 9	145	13.28
Missing Responses	39	3.57
Total	1,092	100.01

teaching. Nearly two-thirds of the respondents reported that they had a year or more experience in business and/or industry in the areas in which they were certified to teach. As can be seen from table 9, those having three years or less business/industry experience out-numbered those reporting more of such experience.

More than half of the respondents reported that they had accepted teaching positions for the 1981-82 school year. Five hundred seventy-eight (52.9%) said they had done so; 492 (45.5%) said they had not accepted such positions. Twenty-two (2.1%) of the respondents did not answer this question on the instrument.

III. RESULTS OF THE STUDY

Presented here are the results of this study, which was designed to find out whether recent graduates of vocational teacher education programs considered themselves prepared to teach exceptional students. If they were prepared, the study asked how they obtained that preparation.

The results consist of frequency counts and percentages of responses given to sections II and III of the mail survey instrument called the Equity Skills Survey. (Responses to the items in section I were used to describe the sample in the preceding chapter, Methodology; responses to the items in section IV concern research consumerism and are reported in Appendix D.)

Major Findings

To highlight the results of the study, the major findings are listed briefly below. More detailed information about the findings appears later in this chapter.

- In 104 of a possible 128 instances (16 professional tasks X 8 exceptional groups), at least half of the respondents indicated they were prepared to do a professional task for a group of exceptional students.

- In twenty-four instances, less than half of the respondents said they could do a task for a group of exceptional students. Most of these instances concerned doing the tasks for adults enrolled in retraining programs and for students who have limited proficiency with English.

- At least half of the respondents reported they could perform all sixteen of the professional tasks for four of the exceptional groups (the gifted and talented, economically disadvantaged students, racial/ethnic minority group members, and students enrolled in programs nontraditional for their sex).

- At least half of the respondents said they could perform nine or more of the sixteen professional tasks for six of the eight groups of exceptional students. The two groups for which fewer respondents said they could perform nine or more tasks were adults enrolled for retraining (49.9%) and students with limited English proficiency (48.0%). The group for which the most respondents said they could do nine or more of the tasks was that of the economically disadvantaged students (73.4%).

- For every professional task, at least some respondents were unprepared to perform it, regardless of the exceptional group for whom it was to be performed. The tasks that the most respondents (about 27%) said they could not do were Task N (Evaluate a Program to Determine Its Effectiveness in Serving) and Task O (Promote Your Program to Attract/Recruit).

- The exceptional groups for which fewest of the respondents were prepared to perform a task were always adults in retraining and students with limited English proficiency.

- Respondents most often cited education courses as the method by which they prepared to do a task. This was the case regardless of the task and the exceptional groups for which it would be done, and regardless of whether the respondents cited one or a combination of preparation methods.

- The respondents' personal and professional contact with exceptional persons appears to have been limited Regarding most groups, "frequent" personal contact was cited more often than was "frequent" professional contact. The reverse was true regarding the respondents' contact with economically disadvantaged people, racial/ethnic minority group members, and students enrolled in programs nontraditional for their sex.

- More respondents cited "no" professional contact with those in each exceptional group than cited "no" personal contact.

- About 57 percent of the respondents indicated that the college methods/pedagogy courses they took that prepared them to teach exceptional students were required courses. Thirty-six percent said those courses were not required. Missing or invalid responses amounted to 7.2 percent for this item.

- Nearly one-third of the respondents reported that the college courses they took outside their major area that prepared them to teach exceptional students were required. About 55 percent said that such courses outside their major were not required. Missing or invalid responses amounted to 13.8 percent for this item.

- Eighty-one to 88 percent of the respondents said that their teacher education program was where they had learned about federal legislation affecting vocational education's responsibility to exceptional students.

Elaboration on Section II Responses

Most Tasks Could be Done for Most Groups. Table 10 shows the number and percentage of respondents who indicated they were prepared to do each professional task for a group of exceptional students. In 104 of a possible 128 instances (16 tasks x 8 groups), at least half of the respondents indicated they were prepared to do a task for a group of exceptional students. Thus, in only twenty-four of 128 instances (cells) did less than half of the respondents say they were prepared to do a task for a group of exceptional students. Most of those twenty-four instances were concentrated in the cells reflecting preparation to do the tasks for two groups, adults enrolled for retraining and students with limited English proficiency. Less than half of the respondents reported they were prepared to do each of eleven of the sixteen professional tasks for adults enrolled for retraining. That was the situation with each of eight of the sixteen professional tasks for students with limited English proficiency. Less than half of the respondents said that they could perform each of four of the sixteen professional tasks for mentally retarded students. The remaining instance in which less than half of the respondents were prepared to do a task for an exceptional group occurred in the cell reflecting the respondents' preparedness to do Task O (Promote Your Program to Attract/Recruit) for the physically impaired.

Preparation for Limited English Students and Adults was Weakest. As can be seen on table 11, the groups for whom fewest of the respondents were prepared to perform a particular task were always limited English proficiency students and adults in retraining. Figures 2-9 show the percentages of respondents who said they were prepared to do professional tasks for exceptional students. Regarding each group of exceptional students, the highest percentages of prepared respondents consistently reported preparation to perform Tasks A (Identify) and G (Improve Your Ability to Communicate with).

Almost All Could Plan Instruction. The percentage of respondents who were not prepared to do a particular professional task for any group varied with the tasks. As table 12 illustrates, the task that the fewest respondents (7.0%) were unprepared to do for any group was Task B (Plan Instruction for). The task that the most respondents (27.6%) said they could not do was Task N (Evaluate a Program to Determine Its Effectiveness in Serving).

Preparation for Economically Disadvantaged was Strongest. Table 13 presents information about the number and percentage of respondents prepared to do more than half of the professional tasks for a group of exceptional students. The percentage of such respondents ranged from 73.4 percent (for economically disadvantaged students) to 48.0 percent (for students with limited English proficiency).

TABLE 10

NUMBER AND PERCENTAGE OF RESPONDENTS PREPARED TO DO TASKS FOR EXCEPTIONAL STUDENTS (N = 1,092)

Professional Tasks	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically Impaired		Limited English		Economically Disadvantaged		Racial/Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Task A	793	72.6	723	66.2	759	69.5	583	53.4	805	73.8	817	74.9	533	$\boxed{48.8}$	730	66.9
Task B	789	72.2	670	61.4	715	65.5	478	$\boxed{43.8}$	763	69.9	721	66.0	553	50.6	724	66.3
Task C	681	62.4	581	53.2	637	58.3	441	$\boxed{40.4}$	688	63.0	649	59.4	508	$\boxed{46.5}$	664	60.8
Task D	666	61.0	627	57.4	723	66.2	443	$\boxed{40.6}$	656	60.1	610	55.9	486	$\boxed{44.5}$	612	56.0
Task E	753	69.0	701	64.2	758	69.4	563	51.6	756	69.2	745	68.2	501	$\boxed{45.9}$	686	62.8
Task F	818	74.9	726	66.5	788	72.2	576	52.7	769	70.4	733	67.1	564	51.6	685	62.7
Task G	777	71.2	731	66.9	774	70.9	623	57.1	809	74.1	784	71.8	599	54.9	717	65.7
Task H	733	67.1	638	58.4	683	62.6	599	54.9	772	70.7	742	68.0	548	50.2	678	62.1
Task I	772	70.1	689	63.1	738	67.6	586	53.7	777	71.2	730	66.9	541	$\boxed{49.5}$	685	62.7
Task J	743	68.0	608	55.7	682	62.5	547	50.1	802	73.4	733	67.1	527	$\boxed{48.3}$	695	63.6
Task K	746	68.3	545	$\boxed{49.9}$	628	57.5	521	$\boxed{47.7}$	787	72.1	732	67.0	538	$\boxed{49.3}$	681	62.4
Task L	719	65.8	589	53.9	645	59.1	521	$\boxed{47.7}$	778	71.2	717	65.7	529	$\boxed{48.4}$	688	63.0
Task M	704	64.5	518	$\boxed{47.4}$	609	55.8	460	$\boxed{42.1}$	760	69.9	702	64.3	545	$\boxed{49.9}$	680	62.3
Task N	600	54.9	509	$\boxed{46.6}$	561	51.4	454	$\boxed{41.6}$	625	57.2	597	54.7	481	$\boxed{44.0}$	566	51.8
Task O	618	56.6	473	$\boxed{43.3}$	544	$\boxed{49.8}$	458	$\boxed{41.9}$	641	58.7	615	56.3	521	$\boxed{47.7}$	623	57.1
Task P	784	71.8	690	63.2	730	66.8	615	56.3	791	72.4	764	70.0	647	59.2	736	67.4

NOTE: Boxes surround percentages of less than 50 percent.

TABLE 11

GROUPS FOR WHOM THE MOST AND FEWEST RESPONDENTS WERE PREPARED TO DO TASKS

Professional Task	Group for Whom Most Were Prepared	Group for Whom Fewest Were Prepared
A. Identify	Racial/Ethnic Minority	Adults in Retraining
B. Plan Instruction for	Gifted and Talented	Limited English Proficiency
C. Provide Materials for	Economically Disadvantaged	Limited English Proficiency
D. Modify the Learning Environment	Physically Impaired	Limited English Proficiency
E. Promote Peer Acceptance of	Physically Impaired	Adults in Retraining
F. Use Special Instructional Techniques for	Gifted and Talented	Adults in Retraining
G. Improve Your Ability to Communicate with	Economically Disadvantaged	Adults in Retraining
H. Improve the Communication Skills of	Economically Disadvantaged	Adults in Retraining
I. Assess the Progress of	Economically Disadvantaged	Adults in Retraining
J. Counsel Students with Personal-Social Problems	Economically Disadvantaged	Adults in Retraining
K. Develop the Career Planning Skills of	Economically Disadvantaged	Limited English Proficiency
L. Assist Students to Develop Life-Coping Skills	Gifted and Talented	Limited English Proficiency
M. Prepare Students for Employability	Economically Disadvantaged	Limited English Proficiency
N. Evaluate a Program to Determine Its Effectiveness in Serving	Economically Disadvantaged	Limited English Proficiency
O. Promote Your Program to Attract/Recruit	Economically Disadvantaged	Limited English Proficiency
P. Continue Your Professional Development Relative to Teaching	Economically Disadvantaged	Limited English Proficiency

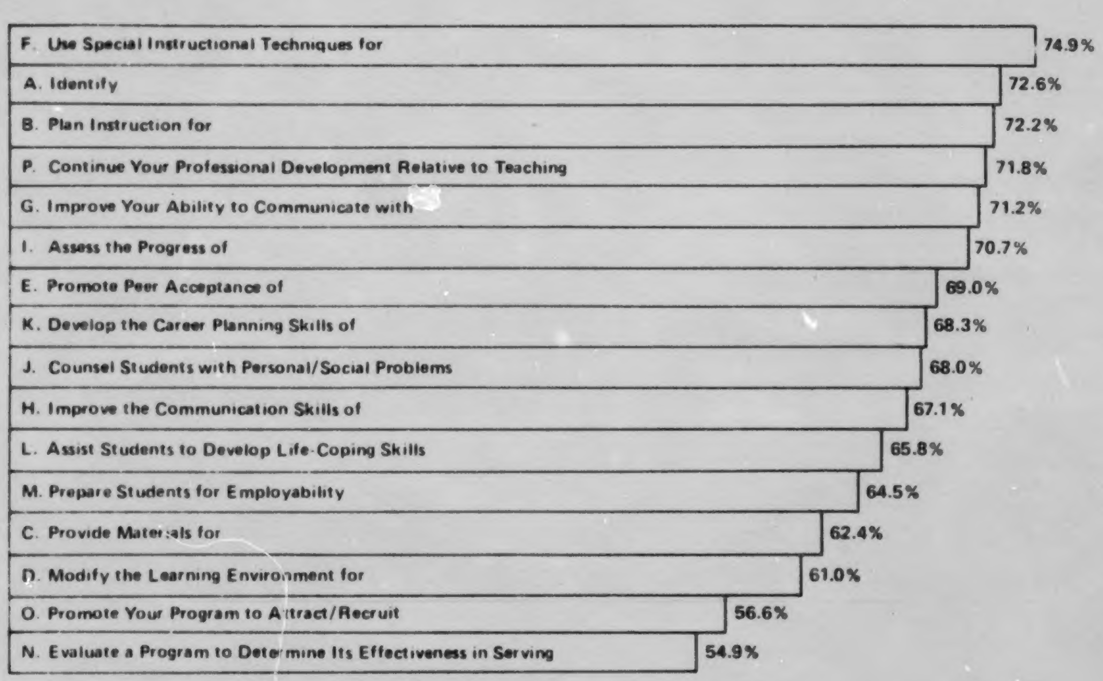


FIGURE 2. PERCENTAGE OF RESPONDENTS PREPARED TO PERFORM TASKS FOR GIFTED AND TALENTED STUDENTS

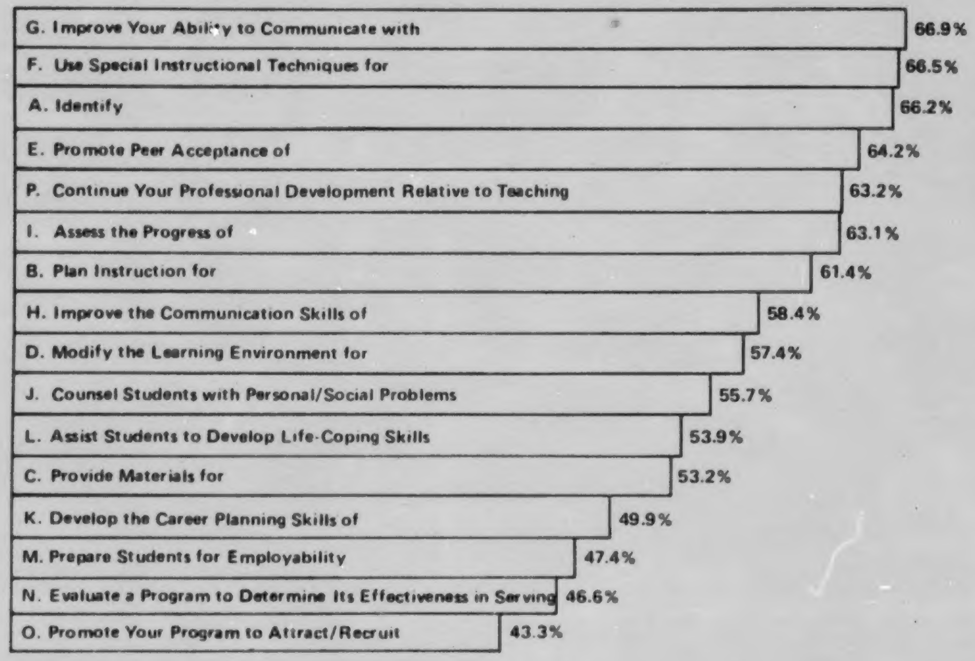


FIGURE 3. PERCENTAGE OF RESPONDENTS PREPARED TO PERFORM TASKS FOR MENTALLY RETARDED STUDENTS

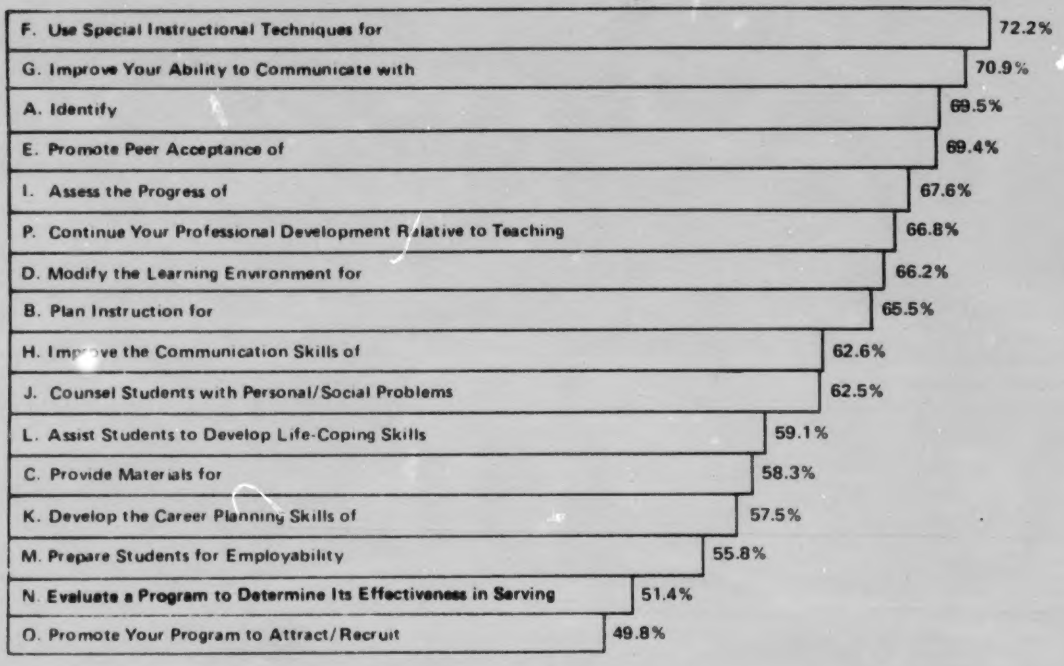


FIGURE 4. PERCENTAGE OF RESPONDENTS PREPARED TO PERFORM TASKS FOR PHYSICALLY IMPAIRED STUDENTS

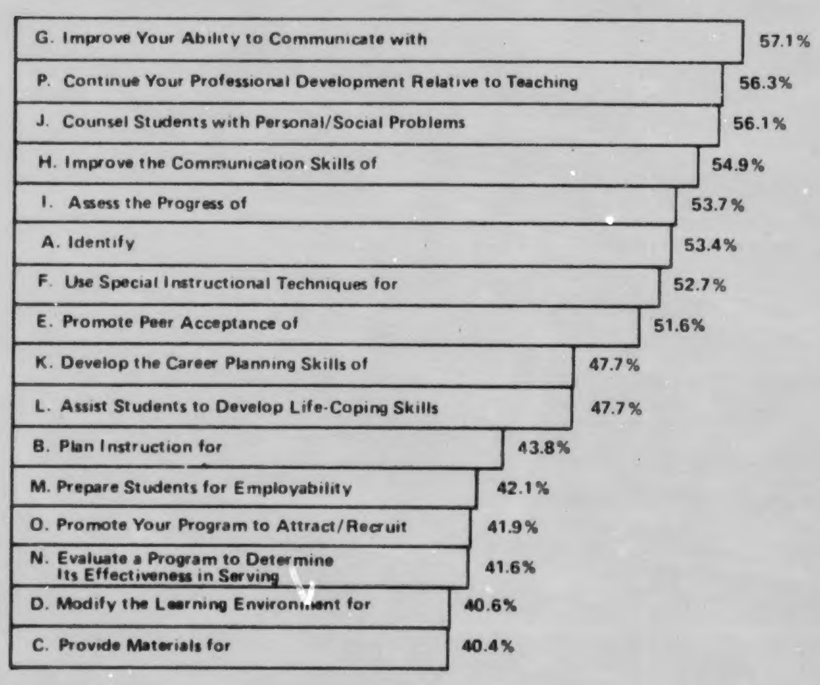


FIGURE 5. PERCENTAGE OF RESPONDENTS PREPARED TO PERFORM TASKS FOR LIMITED ENGLISH PROFICIENCY STUDENTS

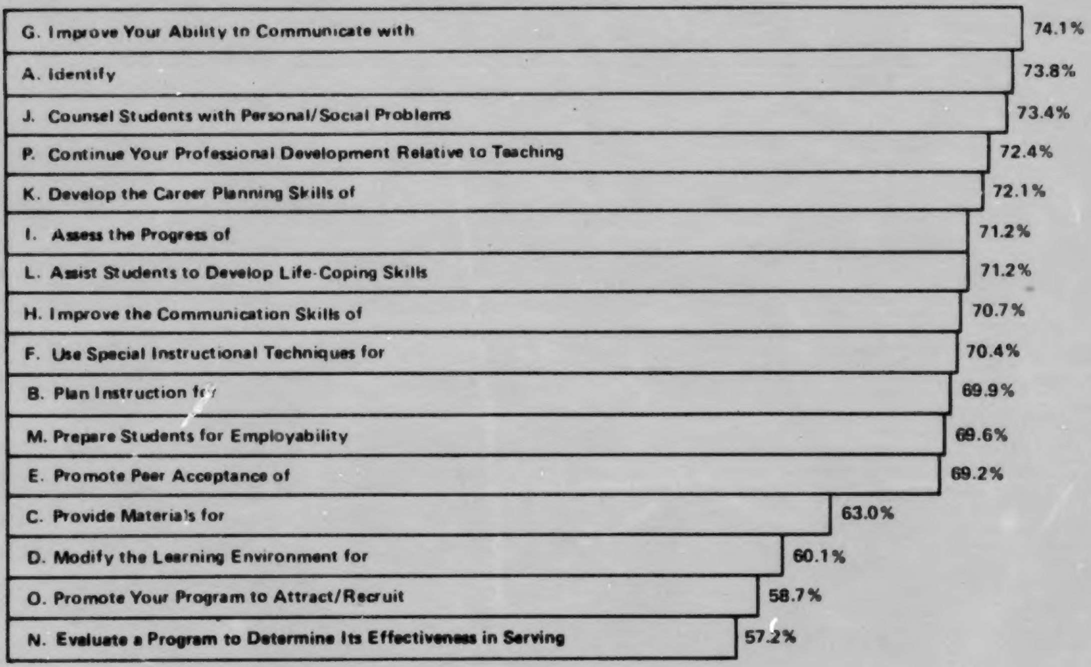


FIGURE 6. PERCENTAGE OF RESPONDENTS PREPARED TO PERFORM TASKS FOR ECONOMICALLY DISADVANTAGED STUDENTS

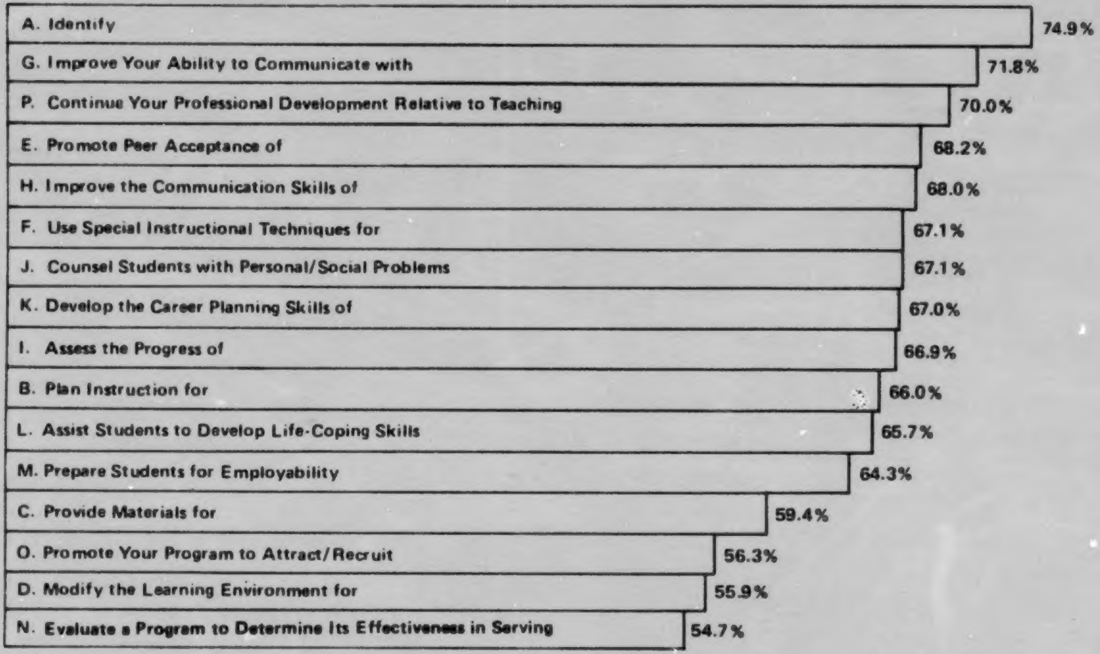


FIGURE 7. PERCENTAGE OF RESPONDENTS PREPARED TO PERFORM TASKS FOR RACIAL/MINORITY STUDENTS

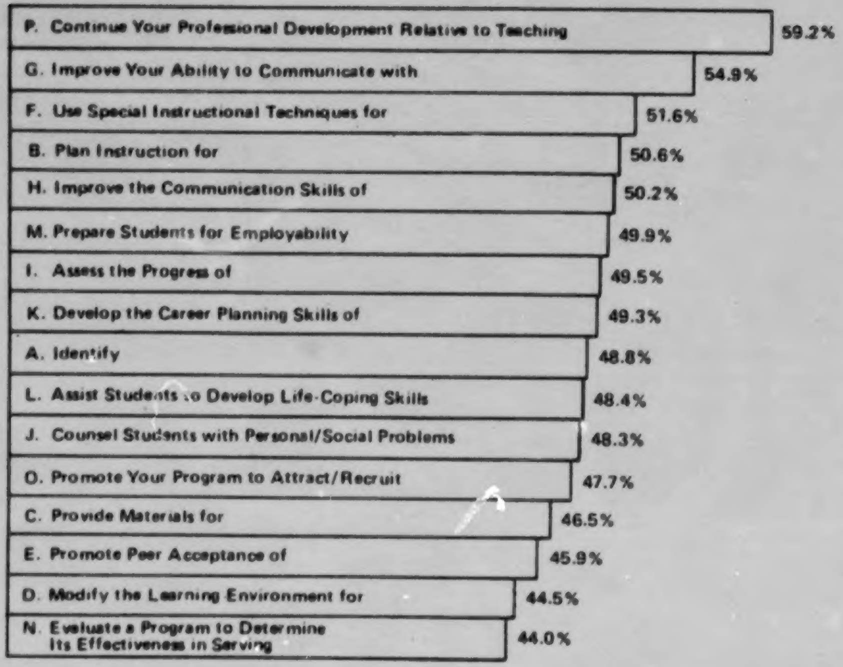


FIGURE 8. PERCENTAGE OF RESPONDENTS PREPARED TO PERFORM TASKS FOR ADULTS IN RETRAINING

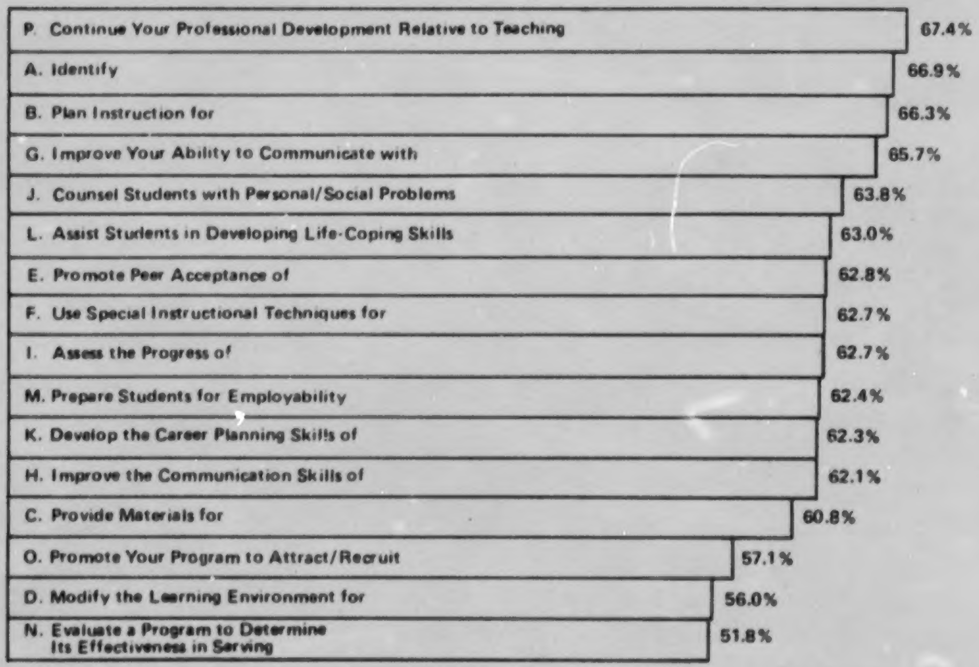


FIGURE 9. PERCENTAGE OF RESPONDENTS PREPARED TO PERFORM TASKS FOR STUDENTS ENROLLED IN PROGRAMS NONTRADITIONAL FOR THEIR SEX

TABLE 12

NUMBER AND PERCENTAGE OF RESPONDENTS NOT PREPARED TO DO PARTICULAR TASKS FOR ANY EXCEPTIONAL GROUP (N = 1,092)

Professional Task	Unprepared Respondents	
	No.	%
A. Identify	81	7.4
B. Plan Instruction for	76	7.0
C. Provide Materials for	148	13.6
D. Modify the Learning Environment for	162	14.8
E. Promote Peer Acceptance of	144	13.2
F. Use Special Instructional Techniques for	89	8.2
G. Improve Your Ability to Communicate with	106	9.7
H. Improve the Communication Skills of	134	12.3
I. Assess the Progress of	111	10.2
J. Counsel Students With Personal/Social Problems	151	13.8
K. Develop the Career Planning Skills of	160	14.7
L. Assist Students to Develop Life-Coping Skills	186	17.0
M. Prepare students for Employability	164	15.0
N. Evaluate a Program to Determine Its Effectiveness in Serving	301	27.6
O. Promote Your Program to Attract/Recruit	299	27.4
P. Continue Your Professional Development Relative to Teaching	151	13.8

TABLE 13

NUMBER AND PERCENTAGE OF RESPONDENTS PREPARED TO DO NINE OR MORE TASKS FOR A GROUP OF EXCEPTIONAL STUDENTS (N = 1,092)

Exceptional Students	Respondents Prepared for Nine or More Tasks	
	No.	%
Economically Disadvantaged	801	73.4
Gifted and Talented	786	72.0
Racial/Ethnic Minority	748	68.5
Physically or Sensory Impaired	739	67.7
Students in Programs Non-traditional for Their Sex	720	65.9
Mentally Retarded	655	60.0
Adults in Retraining	545	49.9
Limited English Proficiency	524	48.0

Some were Totally Prepared/Unprepared for a Group. Some respondents indicated that they were unprepared to do any of the professional tasks for students in an exceptional group. Such responses occurred in regard to every group of exceptional students, as can be seen on table 14. The percentage of respondents unprepared to do any task for a group ranged from 13.3 percent (unprepared to do any task for limited English proficiency students) to 4.8 percent (unprepared to do any task for gifted and talented students).

Thirty-nine respondents (3.6%) reported that they were prepared to do every professional task for every exceptional group. On the other hand, seven respondents (0.6%) reported that they were not prepared to perform any of the tasks for any of the exceptional students.

Education Courses Constituted Most Frequent Preparation. The respondents who were prepared to do professional tasks for exceptional students cited education courses as their method of preparation considerably more often than other methods. This was the case regardless of the task and the exceptional group for whom it would be performed. It was also the case regardless of whether the respondents cited education courses as their only method of preparation to do a task or as one of a combination of methods.

After citing education courses, the respondents generally cited (in descending order of frequency) student teaching, "other" situations such as volunteer work, and college courses outside their major area of study. That was the order of frequency with which methods of preparation were cited in seventy-seven of 128 instances (16 tasks X 8 groups = 128 instances). Methods of preparation were cited in the following order of frequency in forty-six instances: education courses, "other" situations, student teaching, and courses outside their major. (See table 15.)

The respondents showed an interesting consistency of response regarding their methods of preparation to perform tasks for gifted and talented students, the economically disadvantaged, and adults enrolled for retraining. As in all instances, education courses were most often cited. For fifteen of sixteen tasks for each of these three groups, however, methods were cited in the same order of frequency. (Refer to table 15.) For example, in regard to economically disadvantaged students, the order of frequency with which respondents cited methods was the same for Tasks A - O. They cited methods in another order of frequency when reporting their preparation for performing Task P. (Readers interested in more information about the frequency with which respondents cited combinations of methods should refer to the tables in Appendix C.)

None of the items for section II (matrix items) had more than 2. percent of the responses missing or invalid. The effect of these responses was considered inconsequential, given the study's 1,092 respondents.

TABLE 14

NUMBER AND PERCENTAGE OF RESPONDENTS NOT PREPARED TO DO ANY TASK FOR A GROUP OF EXCEPTIONAL STUDENTS (N = 1,092)

Exceptional Students	Respondents Not Prepared to Do Any Task	
	No.	%
Limited English Proficiency	145	13.3
Students in Programs Non-traditional for Their Sex	117	10.7
Mentally Retarded	95	8.7
Adults in Retraining	87	8.0
Physically or Sensory Impaired	65	6.0
Economically Disadvantaged	61	5.6
Racial/Ethnic Minority	59	5.4
Gifted and Talented	52	4.8

TABLE 15

ORDER OF FREQUENCY WITH WHICH RESPONDENTS CITED METHODS OF PREPARATION

Professional Task	Gifted and Talented	Mentally Retarded	Physically Impaired	Limited English	Economically Disadvantaged	Racial/Ethnic Minority	Adults in Retraining	Nontraditional for Their Sex
Task A	1	2	2	2	1	2	2	1
Task B	1	4	1	1	1	1	2	1
Task C	1	2	1	1	1	2	2	1
Task D	1	1	1	1	1	1	2	1
Task E	1	1	1	2	1	2	2	1
Task F	1	1	1	1	1	1	2	1
Task G	1	2	1	1	1	1	2	1
Task H	1	1	1	1	1	1	2	1
Task I	1	1	1	1	1	1	2	1
Task J	1	1	2	2	1	2	2	2
Task K	1	1	1	2	1	2	2	1
Task L	1	2	2	2	1	2	2	2
Task M	1	1	2	1	1	1	2	1
Task N	1	4	1	1	1	1	3	1
Task O	1	2	2	2	1	2	2	2
Task P	2	3	2	2	2	3	2	2

NOTE: The numbers in this table refer to the order of frequency with which respondents cited the methods by which they prepared to perform tasks. For instance, the number 1 across from Task A and beneath the heading gifted and talented indicates that respondents who said they could perform this task for these students cited methods of preparation in the following order of descending frequency: education, student teaching, "other" situations and courses outside their major.

KEY:
1 = education courses, student teaching, "other" situations, courses outside their major
2 = education courses, "other" situations, student teaching, courses outside their major
3 = education courses, "other" situations, courses outside their major, student teaching
4 = education courses, student teaching, courses outside their major, "other" situations

Elaboration on Section III Responses

Items in section III of the instrument asked beginning teachers about the extent of their personal and professional contacts with the various exceptional groups included in the survey. The response scale included four levels: (1) no contact, (2) minimal contact, (3) some contact, and (4) frequent contact. Table 16 reports the results for these items.

Personal Contact was Limited. Overall, personal contact with exceptional groups appeared to be limited. "Frequent" personal contacts were reported by less than one-fourth of the respondents for all groups, except for contact with economically disadvantaged people (27.5%) and ethnic/racial minorities (30.4%). Such contacts were claimed least often with mentally retarded people (11.0%).

The greatest amount of variance occured in the "no" personal contact category. Responses ranged from 8.9 percent for the economically disadvantaged to 35.2 percent for adults in retraining. Most of the responses for personal contacts fell into "minimal contact" or "some contact." The number of responses in the "minimal" category ranged from 277 respondents in one group to 431 in another. Responses in the "some" personal contact category ranged from 236 to 409. The greatest lack of personal contact, as evidenced by the highest percentage of respondents indicating "no" contact, occurred with the adults in retraining and limited English proficiency groups.

Professional Contact was Limited. The extent of the respondents' professional contact with exceptional people also appeared to be limited. The groups with which the highest percentage of "frequent" contacts occurred were economically disadvantaged students, racial/ethnic minority students, and students enrolled in programs nontraditional for their sex. Only one-fourth to one-third of the recent teacher education graduates surveyed said they had had "frequent" professional contact with these groups. Professional contacts exceeded personal contacts with these groups.

Among those respondents who said they had had professional contact with exceptional people, the largest number of responses (35.7%) were clustered in the category "minimal" professional contact with the physically impaired and in the category "frequent" professional contact with gifted and talented (35.2%).

Courses for Most were Required. More than half of the 1,092 respondents (57.1%) indicated that the methods/pedagogy courses they took that prepared them to teach exceptional students had been required courses. About 36 percent of them said those courses they took were not required. Missing or invalid responses amounted to 7.2 percent. The way this item was stated on the instrument probably caused some respondents to leave the

TABLE 16

NUMBER AND PERCENTAGE OF RESPONDENTS WHO REPORTED PERSONAL AND/OR PROFESSIONAL CONTACT WITH EXCEPTIONAL PEOPLE (N = 1,092)

	Personal Contact								Professional Contact							
Exceptional Group	"No"		"Minimal"		"Some"		"Frequent"		"No"		"Minimal"		"Some"		"Frequent"	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Gifted/Talented	142	13.0	327	29.9	409	37.5	214	19.6	261	23.9	384	35.2	324	29.7	123	11.3
Mentally Retarded	217	19.9	418	38.3	337	30.9	120	11.0	377	34.5	345	31.6	250	22.9	120	11.0
Physically Impaired	173	15.8	431	39.5	323	29.6	165	15.1	335	30.7	390	35.7	254	23.3	113	10.3
Limited English Proficiency	288	26.4	399	36.5	253	23.2	152	13.9	380	34.8	346	31.7	215	19.7	151	13.8
Economically Disadvantaged	97	8.9	295	27.0	400	36.6	300	27.5	119	10.9	234	21.4	360	33.0	379	34.7
Racial/Ethnic Minority	107	9.8	277	25.4	376	34.4	332	30.4	160	14.7	288	26.4	299	27.4	345	31.6
Adults in Retraining	364	35.2	321	29.4	236	21.6	151	13.8	582	53.3	202	18.5	164	15.0	144	13.2
Nontraditional for Their Sex	226	20.7	309	28.3	336	30.8	221	20.2	236	21.6	268	24.5	313	28.7	275	25.2

item blank and may account for the number of missing responses. The item was stated: "If you took education methods/pedagogy courses in college that prepared you to teach exceptional students, were most of these courses required for graduation?" Response options were yes and no. Consequently, respondents who did not take such courses may have left the item blank.

Courses Outside Area for Most were not Required. Nearly one-third (31.0%) of the respondents reported that the college courses they took outside their major area of study that prepared them to teach exceptional students were required courses. Slightly more than 55 percent said that such courses they took outside the major area were not required. The amount of missing data was again high (13.8%) and may have resulted from the same situation as described above. The item was stated in such a way that respondents who had taken no outside courses that prepared them to teach exceptional students may have left the item blank.

Legislation was Taught in Education Courses. Responses ranging from 81 percent to 88 percent indicate that the graduates had learned about three specific pieces of legislation in their teacher education programs. This legislation is relevant to vocational education's responsibility in teaching exceptional students. Almost 85 percent said they had learned in their programs about Title IX of the Education Amendments of 1972 (prohibiting sex discrimination) and 14.7 percent had not. The largest percentage of respondents (88.9%) had learned about P.L. 94-142 (Education of All Handicapped Children Act of 1975) in their teacher education program. Nearly 11 percent said they had not. Eighty-one percent of the respondents reported they had learned about Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap, in their teacher education program. More than 18 percent said they had not learned about this legislation in their program. The missing responses concerning these three pieces of legislation ranged from 0.4 percent to 0.5 percent and are considered inconsequential.

In another section III item, respondents were asked to indicate the kinds of courses they had taken outside their major that related to exceptional persons. The options they were given were: ethnic/racial minority history courses, women's studies courses, linguistics and/or foreign language courses, legislation/law courses relating to exceptional persons in education, and "other." Although the "other" category received more responses than any of the others (170, or 16%), more beginning teachers (128, or 12%) said they had been enrolled in legislation/law courses relating to exceptional persons in education than said they had been enrolled in the other specific options listed. Eight percent cited linguistics or foreign language courses, another 8 percent said they had taken ethnic/racial minority history courses, and 4 percent said they had been enrolled in women's studies courses. Only a small percentage of the respondents had been engaged in more than one of the courses listed. Of the combinations, ethnic/racial minority history courses and linguistics/foreign language courses had drawn the largest number of respondents. All other combinations were cited by less than 5 percent of the respondents.

IV. CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations to be made on the basis of this study should be considered in light of the study's limitations. The respondents were mostly white and female, and graduates certified to teach home economics were represented in far greater numbers than were those certified to teach other service areas. It cannot be assumed that these characteristics reflect the target population of recent graduates. In addition, the study suffers from the limitations of any self-report method of data gathering and of any method that allows individuals to "self-select" themselves to be participants. The states involved in the study were also not selected at random. The results, therefore, can be generalized only with caution to those outside the target population of spring 1981 graduates of vocational teacher education programs in the seven service areas in twenty-nine selected states.

The conclusions and recommendations that are made in the following paragraphs are presented in the hopes that they will be helpful to professionals who plan, install, or evaluate preservice and inservice teacher education programs.

1. As demonstrated by the findings presented in this study, those who are beginning their vocational teaching careers are not uniformly prepared to teach exceptional students. *It is recommended that schools and school districts assess their beginning teachers' preparedness to teach exceptional students and then provide appropriate inservice instruction called for by that assessment*.

2. The findings reported here have revealed that the recent teacher education graduates seemed consistently unprepared to teach two groups of exceptional students. Those groups were students with limited English proficiency and adults enrolled for retraining. These results regarding limited English proficiency students are surprising since several states in the sample (such as Florida, New York, and California) have had large numbers of people whose native languages have not been English. The findings regarding the recent graduates' lack of preparedness to teach adults enrolled for retraining are of particular importance in view of the increasing shift to an older American population for the foreseeable future. In addition, these findings are important in view of the increasing numbers of adults who are enrolling for retraining because their jobs have been displaced due to technological change or because job opportunities are shifting from older, failing industries to new industries and occupations. *It is recommended that preservice teacher education providers make a special effort to prepare their graduates to meet the needs of students with limited proficiency with English and adults enrolled for retraining*.

3. More than one-fourth of the recent graduates involved in this study reported they were unprepared to perform Task N (Evaluate a Program to Determine Its Effectiveness in Serving) for any group of exceptional students. At the same time, only 10 percent of the respondents said they could not perform Task I, which involves the evaluation of individuals, for any group. Apparently, the recent graduates did not learn about the connections between student and program evaluation. *It is recommended that teacher educators provide instruction in the area of evaluating vocational programs to determine effectiveness in serving a wide range of exceptional students. This instruction should be provided in connection with instruction on evaluating the progress of individual students.*

4. The respondents in this study made it clear that taking education courses was the method by which they most often prepared to teach exceptional students. Nonetheless, only about 57 percent said they were required to take education courses relevant to teaching exceptional students. *It is recommended that information on the teaching of exceptional students be integrated into regular education "methods" courses, and that these courses and others relevant to exceptional students be designated as required courses.*

5. Questions regarding the recent graduates' contact with exceptional people revealed only limited contact. Teacher educators apparently cannot rely on their students' experiences with exceptional people to contribute much to the students' eventual ability to teach exceptional students. This study offers evidence of at least one problem resulting from this lack of contact. More than one-fourth of the recent teacher education graduates considered themselves unprepared to perform Task O (Promote Your Program to Attract/Recruit) for any group of exceptional students. Recruitment is to a large extent a natural product of belief in the value of a program and personal interest in potential students known personally by the teacher or referred by colleagues. Since the respondents reported only limited contact with exceptional people, it is not surprising that they also reported they cannot recruit them. *It is recommended that teacher educators require (or at least reward with credit hour incentives) a certain amount of interaction between their students and exceptional people and between their students and agencies that serve exceptional people.*

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61

APPENDIX A

Equity Skills Survey

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 KENNY ROAD · COLUMBUS, OHIO 43210

EQUITY SKILLS SURVEY

This survey is designed to find out how beginning teachers become skilled at teaching a variety of students who are now enrolling in vocational education courses. These students are:

- Gifted and talented students
- Mentally retarded students
- Physically or sensory impaired students
- Limited English proficiency students (students who speak and/or write English poorly because it is not their native language)
- Economically disadvantaged students
- Racial/ethnic minority students
- Adults enrolled for retraining (such as displaced homemakers, older Americans, and mid-life career changers)
- Students enrolled in programs nontraditional for their sex

You'll find that the survey refers to "exceptional students" when it is necessary or convenient to refer to all those eight groups of students at once. Please answer the survey questions completely, since this information will be used to help teacher education institutions improve their vocational programs. Thank you.

* * * * *

Card 1 I. Background Information

6-7 1. What is your age? _____ years

8 2. What is your sex? _____ male _____ female

9 3. What is your ethnic origin? (Check **one**.)

____ American Indian or Alaskan Native
____ Asian American or Pacific Islander
____ Black, not of Hispanic origin
____ Hispanic
____ White, not of Hispanic origin
____ Other; please specify: ______________________________

10 4. Which degree did you receive in the spring of 1981?

____ Bachelor's ____ Other; please specify: ______________________

11 5. In which service area(s) are you certified to teach?

____ Agriculture
____ Distributive Education (Marketing & Distribution)
____ Business/Office
____ Trade and Industrial
____ Home Economics
____ Health Occupations
____ Industrial Arts
____ Other; please specify: ______________________________

6. Please indicate the length of time that you have been involved in the following activities. (Write the number of years on the blanks; if an item does not apply to you, write zero [0].)

12 a. Total years of secondary school teaching experience in vocational education. (Do not count practice teaching or student teaching.) _____ year(s)

13 b. Total years of secondary school teaching experience in non-vocational education. (Do not count practice teaching or student teaching.) _____ year(s)

14 c. Total years of work experience in business/industry in occupational areas you are currently certified to teach. _____ year(s)

15 7. Do you have a teaching position for the coming school year?

___ yes ___ no

II. Equity Teaching Skills

Your responses to the items on the following pages will give us information about your preparation (if any) to teach exceptional students who may enroll in regular vocational classes.

As you will notice, items A-P on pages 4 and 6 list professional tasks. These tasks may be performed by teachers as they teach the exceptional students listed across the top of pages 5 and 7.

Please read the first task and its explanation. Then ask yourself whether you can do the task for gifted and talented students, the first group of exceptional students listed.

If you **cannot do** the task for that group, circle the response number "1" across from Task A in the column headed "Gifted and Talented Students." Do not circle the numbers "2" through "5."

If you **can do** the task for gifted and talented students, do not circle the number "1" in that column. Instead, indicate **how you learned to do the task for gifted and talented students** by:

- Circling "2" if it was in education courses, excluding student teaching, that you learned to do the task for this group.
- Circling "3" if you learned to do the task for this group while student teaching.
- Circling "4" if you learned to do it in courses outside your major area of study.
- Circling "5" if you learned to do the task for this group in other situations (for example, while doing volunteer work).

You may circle more than one number if it is appropriate.

The following example should be helpful. Suppose that you are prepared to identify (Task A) three of the groups of exceptional students listed on page 5. You learned to identify gifted and talented students during your education courses and through your student teaching experience. You learned to identify economically disadvantaged students as the result of several college sociology courses that you took. You learned to identify racial/ethnic minority students as the result of education courses and of having grown up in a neighborhood that was inhabited by people from a variety of racial/ethnic groups. The columns across from A on your survey would look like this:

	Gifted and Talented Students (GT)	Mentally Retarded Students (MR)	Physically or Sensory Impaired Students (PI)	Limited English Proficiency Students* (LE)	Economically Disadvantaged Students (ED)	Racial/Ethnic Minority Students (RE)	Adults in Retraining ** (AR)	Students in Programs Nontraditional for Their Sex (NT)
A.	1 [✓ 2] [✓ 3] 4 5	[✓ 1] 2 3 4 5	[✓ 1] 2 3 4 5	[✓ 1] 2 3 4 5	1 2 3 [✓ 4] 5	1 [✓ 2] 3 4 [✓ 5]	[✓ 1] 2 3 4 5	[✓ 1] 2 3 4 5

*includes students who speak and/or write English poorly because it is not their native language

**includes displaced homemakers, mid-life career changers, the elderly, the technologically displaced

Response Scale

1. Not prepared
2. Prepared through education courses
3. Prepared through student teaching
4. Prepared through courses outside your major area of study
5. Prepared through other situations (e.g., volunteer work)

PROFESSIONAL TASKS

A. IDENTIFY (Includes such activities as using interviews, observation, and other informal measures to identify students with special instructional needs; formally analyzing students' language levels; and identifying needs students have which require supportive services)

B. PLAN INSTRUCTION FOR (includes such activities as individualizing instruction, developing students' objectives, and developing individualized student programs [IEPs])

C. PROVIDE MATERIALS FOR (includes such activities as reviewing all instructional materials for bias; selecting/developing instructional materials reflecting populations served; and adapting/using media for individual needs, e.g., captions for the deaf)

D. MODIFY THE LEARNING ENVIRONMENT FOR (includes such activities as eliminating architectural barriers, providing special tools and equipment, providing bilingual safety warnings, duplicating actual job conditions, and reducing visual/auditory distractions)

E. PROMOTE PEER ACCEPTANCE OF (includes such activities as promoting intercultural understanding, orienting students to the individual needs and characteristics of exceptional students, and setting an example of acceptance of exceptional students)

F. USE SPECIAL INSTRUCTIONAL TECHNIQUES FOR (includes such activities as using audiovisuals and computer-assisted instruction, providing frequent positive reinforcement, and using simulation techniques)

G. IMPROVE YOUR ABILITY TO COMMUNICATE WITH (includes such activities as simplifying your communication patterns, using nondiscriminatory language, and using active listening techniques)

H. IMPROVE THE COMMUNICATION SKILLS OF (includes such activities as familiarizing students with standard work langauage used on the job, providing role models for appropriate communication styles, and reinforcing student's use of plain English)

I. ASSESS THE PROGRESS OF (includes such activities as devising alternative testing procedures to match students' learning styles and skill requirements, using performance tests, and monitoring student progress more frequently)

J. COUNSEL STUDENTS WITH PERSONAL-SOCIAL PROBLEMS (includes such activities as developing rapport with students, providing for any necessary support counseling, and referring students to outside professionals)

K. DEVELOP THE CAREER PLANNING SKILLS OF (includes such activities as guiding students in exploring career options, helping students develop goal-setting skills, and helping parents and students accept realistic career goals

L. ASSIST STUDENTS TO DEVELOP LIFE-COPING SKILLS (includes such activities as teaching students to accurately assess various situations and respond appropriately, helping students deal with change, orienting students to equity legislation, and helping students deal with the various roles they may play as student, parent, breadwinner, etc.)

		Gifted and Talented Students (GT)	Mentally Retarded Students (MR)	Physically or Sensory Impaired Students (PI)	Limited English Proficiency Students* (LE)	Economically Disadvantaged Students (ED)	Racial/Ethnic Minority Students (RE)	Adults in Retraining** (AR)	Students in Programs Nontraditional for Their Sex (NT)
16-55	A.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
56-80 Card 2 6-20	B.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
21-60	C.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
61-80 Card 3 6-25	D.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
26-65	E.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
66-80 Card 4 6-30	F.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
31-70	G.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
71-80 Card 5 6-35	H.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
36-75	I.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
76-80 Card 6 6-40	J.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
41-80	K.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Card 7 6-45	L.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

*includes students who speak and/or write English poorly because it is not their native language

**includes displaced homemakers, mid-life career changers, the elderly, the technologically displaced

Response Scale

1. Not prepared
2. Prepared through education courses
3. Prepared through student teaching
4. Prepared through courses outside your major area of study
5. Prepared through other situations (e.g., volunteer work)

M. PREPARE STUDENTS FOR EMPLOYABILITY (includes such activities as assisting students to acquire effective interview skills, arranging for exploratory occupational opportunities, and gathering employment information specific to exceptional students)

N. EVALUATE A PROGRAM TO DETERMINE ITS EFFECTIVENESS IN SERVING (includes such activities as developing formal and informal procedures to measure achievement of program goals and objectives specifically related to exceptional students, conducting follow-up activities concerning exceptional students, and using evaluation data to improve the effectiveness of a program in serving exceptional students)

O. PROMOTE YOUR PROGRAM TO ATTRACT/RECRUIT (includes such activities as making promotional presentations, enlisting community support, and developing up-to-date specialized mailing lists for promotional materials)

P. CONTINUE YOUR PROFESSIONAL DEVELOPMENT RELATIVE TO TEACHING (includes such activities as expanding your concept of your professional and instructional roles and responsibilities; keeping up-to-date on issues related to exceptional students; and increasing your understanding of students' cultures, life styles, and values through family and community contacts)

		Gifted and Talented Students (GT)	Mentally Retarded Students (MR)	Physically or Sensory Impaired Students (PI)	Limited English Proficiency Students*(LE)	Economically Disadvantaged Students (ED)	Racial/Ethnic Minority Students (RE)	Adults in Retraining **(AR)	Students in Programs Nontraditional for Their Sex (NT)
46-80 Card 8 6-10	M.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
11-50	N.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
51-80 Card 9 6-15	O.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
16-55	P.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

*includes students who speak and/or write English poorly because it is not their native language
**includes displaced homemakers, mid-life career changers, the elderly, the technologically displaced

III. Equity Background Information

1. For each group of people listed below, indicate the amount of personal and professional contact you have had with each group by circling the appropriate number opposite the groups.

0 = no contact 1 = minimal contact 2 = some contact 3 = frequent contact

			Personal Contact				Professional Contact			
56-57	a.	Gifted and talented persons	0	1	2	3	0	1	2	3
58-59	b.	Mentally retarded persons	0	1	2	3	0	1	2	3
60-61	c.	Physically or sensory impaired persons	0	1	2	3	0	1	2	3
62-63	d.	Limited English proficiency persons	0	1	2	3	0	1	2	3
64-65	e.	Economically disadvantaged persons	0	1	2	3	0	1	2	3
66-67	f.	Racial/ethnic minority persons	0	1	2	3	0	1	2	3
68-69	g.	Adults in retraining programs	0	1	2	3	0	1	2	3
70-71	h.	Persons enrolled in school programs nontraditional for their sex	0	1	2	3	0	1	2	3

72 2. If you took education methods/pedagogy courses in college that prepared you to teach exceptional students, were most of those courses required for graduation?

___ yes ___ no

73 3. Indicate the kinds of college courses you took outside your major area of study that relate to exceptional persons by checking the appropriate category(ies) below.

___ Ethnic/racial minority history courses
___ Women's studies courses
___ Linguistics and/or foreign language courses
___ Legislation/law courses relating to exceptional persons in education
___ Other; please specify: ______________________________

74 4. If you took college courses outside your major area of study that were related to exceptional persons, were most of those courses required for graduation?

___ yes ___ no

75 5. In your teacher education program, did you learn about

a. Title IX (prohibiting sex discrimination) of the Educational Amendments of 1972?

_____ yes _____ no

76 b. Education for All Handicapped Children Act of 1975 (Public Law 94-142)?

_____ yes _____ no

77 c. Section 504 (which prohibits discrimination on the basis of handicap) of the Rehabilitation Act of 1973?

____yes ____no

78 IV. Use of Research Information

1. Did you use vocational education research journals/periodicals while doing your college course work?

____ yes ____ no

79 2. How useful did you find vocational education research journals while doing your course work?

____ very useful ____ useful ____ not useful

____ I've never used them

80 3. Have you used the Educational Resources Information Center (ERIC) national information system to obtain references or bibliographic information?

____ yes ____ no

APPENDIX B

Identified and Verified Teacher Competencies for Delivering Nondiscriminatory Instruction

I. IDENTIFICATION/DIAGNOSIS OF STUDENTS

1. Identify existing assessment devices, techniques, and services for teacher use.

2. Confer with all who may be able to provide appropriate input (e.g., parents, other teachers, counselors, special educators, specialists, students, rehabilitation personnel, employers, other persons in outside agencies).

3. Review all available student records.

4. Use interviews, observation, and other informal measures to identify students with special/exceptional instructional needs.

5. Refer students for testing as needed (e.g., language, math, communication mediums, manual dexterity, etc.).

6. Assess students' special educational needs.

7. Identify students' learning styles.

8. Analyze students' language levels by assessing listening, reading, writing, and speaking skills.

9. Implement oral language activities to determine language levels (e.g., ability to follow directions).

10. Ask student about his/her language ability.

11. Identify students whose goals in selecting your program/course vary from the "norm."

12. Determine if student has any background experiences which give him/her some expertise in part of the usual course content.

13. Assess students' motor skills limitations in relation to occupational skills required.

14. Use skill performance tests with open-ended upper limits as a diagnostic device.

15. Determine if low occupational test scores are due to language or communication deficits.

16. Identify needs students have which require supportive services.

17. Identify degree to which students accept their native culture.

18. Identify students who lack the simple occupational basics prerequisite to success in the course (e.g., tool identification).

SOURCE: Hamilton, J.; Harrington, L.G.; Lowry, C.M.; Quinn K.; and Sellers, L.A. Development of Performance-Based Teacher Education Modules for Nondiscriminatory Instruction: An Interim Report. Columbus, OH: National Center for Research in Vocational Education, The Ohio State University, 1980

19. Identify students whose habits or conditions (e.g., use of drugs and alcohol, lack of nourishing food) may pose a safety hazard.

20. Determine if the disability is, in fact, a vocational handicap.

21. Consider and interpret all collected identification/diagnostic data.

22. Devise an efficient system for recording and sharing data gathered through informal measures.

23. Assist in documenting/reporting the identification process/findings.

24. Reassess students' values, interests, and strengths on a continuing basis.

II. INSTRUCTIONAL PLANNING

25. Identify jobs on career hierarchy/ladder.

26. Match/modify jobs on career hierarchy/ladder to students' ability.

27. Identify and verify vocational skills needed by student to meet career goal.

28. Identify and verify related skills (reading, math, sight and spoken vocabulary) needed for vocational competence.

29. Identify all operations--no matter how small--in task analysis process.

30. Identify false assumptions regarding skills and knowledge possessed by students entering program (e.g., that all students can identify a Phillips screwdriver).

31. Reexamine any existing curricula and modify where appropriate to meet the individual needs of students.

32. Develop--with student (if possible), parents, specialists--an individualized student plan (e.g., I.E.P., employability plan).

33. Ensure that due process is followed in actions that affect students with special/exceptional needs.

34. Plan to individualize instruction.

35. Sequence instructional tasks to meet students' special needs (e.g., from simple to complex, in job order, eliminating steps).

36. Modify task where realistic (e.g., color coding, adding timers, etc.).

37. Modify time allotments (length of classes, length of training) to meet students' needs.

38. Modify the breadth and/or depth of content covered by the student.

39. Provide supplementary/parallel experiences.

40. Plan to repeat the same concept using a variety of instructional techniques.

41. Develop objectives in the higher level of the domains (Bloom, Krathwohl, etc.).

42. Develop objectives reflecting the components of creative thought (Williams).

43. Develop students' potential and self-reliance by maximizing opportunities for them to periodically plan their own learning experiences.

44. Coordinate curriculum content with instructional team members (e.g., coordinate skill training with language and developmental training).

45. Work with language instructor to develop a total coordinated set of performance objectives relating to both occupational and language skills required.

46. Develop (in conjunction with bilingual specialist) occupational-English-as-a-second-language lessons.

47. Share occupational materials with other instructors working with your vocational students (e.g., language instructor, special educator, etc.).

48. Devise strategies for accommodating students entering the program at various points (open entry/open exit).

III. MATERIALS SELECTION/DEVELOPMENT

49. Evaluate existing instructional materials.

50. Review all instructional materials for bias (sex, racial, cultural, handicapping conditions, age, etc.).

51. Ensure that low-level reading material is appropriate for age level (e.g., inoffensive to adult populations).

52. Identify sources of free materials and equipment (e.g., government surplus, industrial donations, etc.).

53. Identify sources of teacher/student materials appropriate for population(s) served.

54. Identify sources of existing bias-free materials.

55. Identify bilingual materials available within the community.

56. Locate native language materials.

57. Locate existing materials at appropriate reading levels.

58. Locate multimedia materials.

59. Locate/obtain instructional materials which challenge students with high potential.

60. Collect and use real objects as instructional examples (e.g., a malfunctioning carburetor).

61. Develop students' ability to identify existing sources of materials and to recycle materials.

62. Provide (adapt, develop) materials to match individual learning styles of students.

63. Simplify existing instructional materials (e.g., adjust reading level and sentence structure; replace or reinforce written material with illustrations, graphs, charts, diagrams).

64. Improvise materials and equipment if necessary (e.g., funds are lacking, suitable equipment is not available, etc.).

65. Emphasize inclusion of visuals, graphs, and audiovisuals in your plans.

66. Develop illustrated handout materials.

67. Develop or arrange for the development of film loops, slide/tapes, mock-ups, cutaways, etc., in-house as needed.

68. Select/develop instructional materials (written, visual aids) reflecting populations served.

69. Adapt/use media for individual needs (e.g., captions for the deaf, braille for the blind, etc.).

70. Develop supplemental bias-free instructional materials.

71. Develop/select materials designed to help students lacking the simple occupational basics prerequisite to success in the course (e.g., tool identification).

72. Develop individualized learning packages.

73. Develop instructional games.

74. Develop bilingual student manual.

75. Develop bilingual instructional materials.

76. Use employers/special education personnel to assist in the development of materials.

77. Use reading/math materials which include examples of practical applications.

78. Use reading/math materials at same levels as required on the job.

79. Provide students with simplified technical glossary.

80. Provide students with technical bilingual/native language dictionaries.

81. Involve students in preparing and selecting instructional materials.

IV. MODIFICATION OF LEARNING ENVIRONMENT/PHYSICAL SETTING

82. Duplicate actual job conditions and equipment insofar as possible.

83. Create a nontraditional environment in the classroom (less formal).

84. Review classroom and laboratory environment for sex bias.

85. Modify work stations as needed to meet students' special physical needs (e.g., functional, safe).

86. Provide (identify, obtain, adapt, develop) special tools, equipment, aids, etc., as needed.

87. Provide for flexible seating if possible (e.g., to support large-group, small-group, one-to-one instruction).

88. Arrange seating during instruction to accommodate the needs of physically and sensory impaired students.

89. Reduce or eliminate distracting elements (e.g., visual, auditory).

90. Provide for comfort (e.g., seating, heat, air movement).

91. Eliminate identified architectural barriers where possible.

92. Provide input into facility design to ensure elimination of architectural barriers.

93. Be alert to the types of emergencies that might occur for individual students.

94. Determine the special safety conditions that may be required by the handicapped students.

95. Provide bilingual safety/precaution instructions on or near tools, equipment, and laboratory materials.

96. Identify emergency procedures to be followed.

97. Identify legal implications involved in giving aid.

98. Identify/contact emergency resources.

99. Provide a place for sharing--students and teacher--special information.

V. SPECIAL INSTRUCTIONAL TECHNIQUES

100. Use team approach (e.g., work with language instructors, special educators, other instructors, counselors, aides, paraprofessionals, volunteers, interpreters, itinerant teachers, etc.).

101. Increase use of demonstrations.

102. Increase use of hands-on activities.

103. Increase use of up-to-date actual objects and equipment.

104. Use activities designed to help students lacking simple occupational basics prerequisite to success in the course (e.g., tool identification).

105. Use role-playing techniques.

106. Use simulation techniques.

107. Teach trouble-shooting, problem-solving, diagnostic techniques.

108. Use case studies (hypothetical ones you develop or those based on students' actual experiences on the job) to provide students with opportunities to solve problems.

109. Use individualized learning packages.

110. Increase use of individualized instructional strategies.

111. Use field trips.

112. Use instructional games.

113. Use community involvement projects which utilize students' occupational or language skills.

114. Use audiovisuals frequently (e.g., as a reinforcer and/or training tool).

115. Modify use of audiovisuals such as stopping the film, showing slides slowly, etc.

116. Use self-paced multimedia instructional systems.

117. Use computer assisted instruction.

118. Use a multisensory approach to instruction.

119. Identify and use role models.

120. Use guest speakers and visiting resource persons.

121. Inform students of relevant school and community services available to them (e.g., academic, language, basic skills).

122. Provide or arrange for remedial instruction needed.

123. Support student's involvement in a pull-out program.

124. Provide opportunities for competent students to serve as tutors or teaching assistants.

125. Provide students with one-to-one tutoring as needed (e.g., use of peers, volunteers, paid tutors, teacher, etc.).

126. Use bilingual peers to tutor.

127. Use a "buddy system" for students with special/exceptional needs.

128. Encourage students to share with peers instruction-related information and skills acquired through previous employment/life experiences.

129. Facilitate group interaction through large-group and small-group discussion.

130. Provide experiences which allow student to experience closure, achievement, product completion, pride of ownership.

131. Provide frequent positive reinforcement (e.g., praise, reward, display of work).

132. Provide immediate and frequent success experiences.

133. Express "criticism" in a positive, constructive manner.

134. Develop students' ability to accept delayed gratification.

135. Use techniques that help students accept that some failure/criticism is a normal part of life.

136. Increase expectations gradually until job entry level is achieved.

137. Provide frequent feedback.

138. Create a nonthreatening classroom atmosphere (e.g., relaxed, open, permits acceptance of feeling, allows students to request special help without embarrassment).

139. Orient students to the classroom, your procedures, and instructional expectations.

140. Stress safety skills.

141. Clarify course objectives for students as needed.

142. Present information in small, discrete, and sequential steps.

143. Simplify instruction of essential tasks.

144. Pace activities to meet students' needs.

145. Develop practical application activities geared to the world of work.

146. Use the most real activity possible (e.g., audiovisuals, job sites, shadowing).

147. Encourage students to report (orally, in writing) on job-site visitations.

148. Maintain an up-to-date file of students' job-site reports for sharing purposes.

149. Provide adequate on-the-job training (e.g., co-op, internships, mentorships/shadowing).

150. Ensure that students are continuously involved in relevant instruction (e.g., no busy work).

151. Provide students with opportunities to make the program their own (pride, responsibility).

152. Manage the behavior of students with mental and emotional disorders.

153. Use behavior contracting to encourage students to take responsibility for their own actions.

154. Provide freedom and flexibility within the instructional structure (e.g., discovery techniques, independent study, student research, inquiry approaches, student contracts).

155. Teach skills of divergent thinking (transformation, implications, and adaptation).

156. Include activities involving the components of creative thought (inventiveness, originality, creativity, elaboration, fluency, flexibility).

157. Use creative problem-solving techniques to stimulate student creativity, etc. (E. Paul Torrance).

158. Treat all students consistently and fairly (e.g., rotation of tasks, discipline, etc.).

159. Encourage students to participate in local/state/national competitions which encourage creativity (e.g., Junior MENSA, creative problem-solving, essay-writing contests, speaking competitions, design competitions).

160. Encourage nontraditional students to participate in leadership activities in student vocational organizations.

161. Develop strategies for involving special/exceptional students fully in student vocational organizations.

162. Employ a variety of instructional techniques to meet learning styles and maintain interest.

VI. COMMUNICATION/LANGUAGE/VOCABULARY

163. Simplify your communication patterns (e.g, simple language, simple directions, simple sentence structure, simple vocabulary).

164. Provide examples geared to students' frame of reference.

165. Be consistent in explaining and presenting skills to avoid confusion.

166. Speak slowly.

167. Use nondiscriminatory language (e.g., nonsexist, nonracist, etc.).

168. Develop functional means (e.g., sign language) to communicate with students having communication deficits.

169. Ensure that your communication patterns (verbal, nonverbal) do not single out any student as different.

170. Use two-way communication processes.

171. Say what you mean, and mean what you say (i.e., communicate openly and honestly).

172. Use active listening techniques.

173. Identify acceptable student nonverbal behavior.

174. Develop an ability to interpret nonstandard English.

175. Interpret verbal/nonverbal communication accurately.

176. Demonstrate acceptance of varying language styles within reasonable limits, but establish acceptable standards.

177. Provide role models for appropriate communication styles.

178. Use acceptable nonverbal behavior.

179. Introduce technical terms using common terminology and language students understand.

180. Familiarize students with standard work language used on the job (e.g., slang, occupational synonyms).

181. Use specialized language instruction techniques (e.g., label objects to teach vocabulary).

182. Ensure students' understanding by asking key questions, having them repeat or paraphrase directions, or having them demonstrate their understanding by carrying out your instructions.

183. Ask nonparticipating students individual questions that they are capable of answering in English.

184. Reinforce students' use of plain English.

185. Clarify proper use of English on an individual basis to avoid embarrassment.

186. Use bilingual students to instruct students with limited or non-English proficiency.

187. Use students to explain content to their peers in their own terminology.

188. Provide for language remediation if needed to succeed on the job.

VII. PREPARATION OF STUDENTS FOR EMPLOYABILITY

189. Include on the advisory committee persons representative of the populations served.

190. Include employers of special/exceptional individuals on the advisory committee.

191. Include special education personnel on the advisory committee.

192. Inform advisory committee members concerning the needs of special/exceptional students.

193. Consult with advisory committee concerning employer expectations.

194. Gather employment information specific to special/exceptional populations served (e.g., employment situations reflecting these populations, employers supportive of hiring, actual job opportunities).

195. Work with employers and unions to promote job opportunities and facilitate placement of special/exceptional students (e.g., sensitize them to the capabilities of the students prepared by your program; encourage them to review existing hiring, promotion, and membership practices to elimininate discrimination).

196. Assist employers in reviewing entry-level requirements to ensure that they do not unnecessarily preclude the employment of special/exceptional populations (e.g., if lifting is not really required, the job may be restructured; if it is, additional training may be required).

197. Help employers modify/restructure those jobs that unnecessarily preclude the employment of special/exceptional students.

198. Identify special training needs (e.g., physical fitness training) to improve employability and meet B-I-L requirements.

199. Refer students to programs designed to increase employability.

200. Help students understand the concept of work and develop a realistic attitude toward the need for work.

201. Inform students of, and prepare them to cope with, the realities of employment (e.g., employer rights and expectations, conditions and attitudes, entry salaries, and opportunities for advancement).

202. Identify for students U.S. cultural taboos.

203. Explain the woman's expanding role in U.S. labor force to those students whose culture defines the woman's employment role in a traditional or limited way.

204. Explain employee's job rights (e.g., affirmative action guidelines).

205. Demonstrate acceptance of student, yet point out acceptable and unacceptable behaviors for the world of work (e.g., work ethics, attitudes, attendance, appearance, promptness, interpersonal skills).

206. Reinforce positive work behaviors (e.g., appearance, attitudes, expression).

207. Present a positive role model for employability (e.g., demonstrate acceptable on-the-job communication, show enthusiasm for your job, present a good self-concept, abide by school rules and policies, provide models of appropriate dress on the job).

208. Arrange for students to observe successfully employed role models (e.g., on-the-job visits, classroom visits by persons from B-I-L or former students, media presentations).

209. Provide B-I-L with opportunities to motivate special/exceptional students by explaining employment possibilities.

210. Arrange for exploratory occupational opportunities (e.g., field trips, volunteerism, time-limited employment).

211. Establish in students the need for responsibility in the class and how it relates to employment.

212. Prepare students to locate job openings.

213. Introduce students to the existence of bilingual job opportunities.

214. Develop students' ability to complete paper work necessary to apply for a job (e.g., acquisition of work permit, social security card; preparation of letters of application, resumes, application forms).

215. Assist students in acquiring effective interview skills (e.g., explain preparation and follow-up procedures, arrange for practice interviews/role-playing).

216. Prepare students to cope with being rejected for a job (e.g., need for persistence).

217. Prepare students to exit a job professionally.

218. Place, or assist in the placement of, students on the job.

219. Assist students in making the transition from school to work by frequent on-the-job visits during the initial stages of employment.

220. Provide employer with honest appraisal of student's capabilities.

VIII. COUNSELING/STUDENT SELF-AWARENESS, SELF-CONCEPT, SELF-IMAGE, SELF-ACTUALIZATION

221. Develop rapport: exhibit empathy, be sincere, use tact, exhibit patience, build trust.

222. Maintain an open-door policy.

223. Recognize the influence of students' other life roles and priorities (e.g., family and employment responsibilities).

224. Educate students' significant others concerning the value of your vocational program for the student in order to gain their support of the student's efforts.

225. Prepare students to cope with "reentry shock" that may accompany a return to school, a change in jobs, or entrance into the labor market.

226. Identify and attempt to resolve student emotional discomfort (e.g., culture shock, family nostalgia, feeling "different").

227. Observe students to identify physical and emotional status (e.g., use of drugs and alcohol, evidence of parental abuse).

228. Identify students whose personal problems (e.g., lack of food, shelter, day care; divorce or desertion; need for therapy) may affect their class attendance or ability to perform.

229. Identify existing school and community resources and support services, what they do, how to use them, who to contact.

230. Inform students of relevant school and community services available to them (e.g., social, cultural).

231. Provide or arrange for any necessary support counseling (e.g., legal, medical, financial, social, mental health).

232. Follow up initially on students who are absent to determine why and to offer encouragement.

233. Help students identify own strengths and weaknesses (e.g., self-defeating behaviors).

234. Emphasize students' special talents (e.g., skills, aptitudes, multilingualism).

235. Assist students in developing positive attitudes toward themselves, others, work, school, etc.

236. Relate self-awareness activities to career goals.

237. Stress the importance of a neat, clean personal appearance.

238. Provide hygiene information as appropriate.

239. Provide opportunities for students to develop self-responsibility.

240. Express high expectations for students.

241. Instill personal motivation.

242. Assist students in clarifying their values if necessary.

243. Be willing to explain own values if asked.

244. Provide positive role models with whom special/exceptional students can identify.

245. Maintain perspective (e.g., cultivate a sense of humor).

246. Continue to encourage students despite apparent lack of progress.

247. Maintain appropriate records documenting any counseling activities you perform.

IX. DEVELOPMENT OF STUDENTS' CAREER PLANNING SKILLS

248. Guide students in exploring career options (i.e., job alternatives) in both B-I-L and vocational education.

249. Provide students with realistic career information (e.g., job skills and experience needed and time required) to assist students in making realistic career choices.

250. Provide information about future trends and technological changes which may affect employment.

251. Reinforce the "career ladder" concept as needed to acquaint students with the opportunities for upward mobility.

252. Help students to develop decision-making, goal-setting skills.

253. Assist students in setting realistic career goals.

254. Encourage students enrolled in programs nontraditional for their sex to consider a teaching career in that occupation.

255. Help parents and students accept realistic career goals.

256. Develop students' ability to organize to achieve career goals.

257. Help students redirect career goals if necessary later in the program.

X. PROMOTION OF PEER ACCEPTANCE

258. Orient students to the individual needs and characteristics of their special/exceptional peers, stressing the characteristics, interests, feelings, etc., shared by all students in the class.

259. Set an example of acceptance of special/exceptional students.

260. Involve class leaders in promoting acceptance.

261. Facilitate the productive integration of the special/exceptional students with their peers through social and academic activities (e.g., group activities requiring student interaction, activities requiring interracial cooperation, viewing of model demonstrations presented by mentally retarded students, folk festivals, etc.).

262. Promote intercultural understanding.

263. Provide activities designed to increase students' interpersonal relations skills.

264. Create student awareness of group dynamics.

265. Encourage the development and growth of formal and informal student support groups.

XI. DEVELOPMENT OF STUDENTS' LIFE-ROLE COMPETENCIES

266. Provide students with life-coping skills (e.g., ability to make decisions, budget, acquire credit, select housing, manage a household, utilize the legal system, etc.).

267. Teach stress management techniques.

268. Teach time management techniques.

269. Provide students with skills for coping with sexual harassment.

270. Orient students to equity legislation and available recourse strategies.

271. Provide or arrange for assertiveness training for students.

272. Teach students to accurately assess various situations and respond appropriately (e.g., avoid overreacting to apparent insensitivity or bias).

273. Share informally with students information/materials relevant to life-coping skills, but not necessarily part of the planned curriculum (e.g., a relevant article clipped from the newspaper).

274. Provide information geared to special needs (e.g., physiology of aging).

275. Use outside persons to share relevant information (e.g., consumer advocate, representative of tenant union, legal aid staff).

276. Help students understand and cope with the inevitability of change.

277. Help students deal with a multiplicity of roles and responsibilities (e.g., student, parent, spouse, breadwinner)

278. Teach students how to identify, develop, and use their own support systems.

279. Help students see relationship between life skills and career skills.

XII. STUDENT EVALUATION

280. Devise one set of minimum performance standards for all students, but provide options for successful completion (e.g., vary time allowed to achieve skill to level required on the job).

281. Reinforce necessity of meeting minimum performance standards.

282. Apply occupational standards and requirements consistently and equally.

283. Evaluate students on the basis of their achievement of their own individual goals.

284. Monitor student progress more frequently.

285. Monitor the progress of students working independently.

286. Devise alternative or modify existing testing procedures to match students' learning styles and skill requirements (e.g., provide bilingual tests, oral tests, picture tests).

287. Increase use of tests which focus on students' ability to perform and apply skills.

288. Provide evaluation criteria to measure achievement of higher-level objectives.

289. Provide devices to promote student self-evaluation.

290. Use videotape as an assessment tool (e.g., to record student performance and to record model performances against which students can self-assess).

291. Involve students in developing and administering their own evaluation methods.

292. Ensure that experiences outside the classroom (e.g., internships) are appropriately evaluated.

293. Assist persons working with students outside the classroom (e.g., mentors) in developing evaluation measures.

294. Use panels of judges to evaluate student performance when appropriate.

295. Make sure students know and understand how they will be evaluated.

296. Explain test-taking techniques.

297. Minimize fear of testing.

298. Correct student performance diplomatically,

299. Review test results individually as needed.

300. Assess student progress toward completion of individualized student plan (e.g., employability plan, I.E.P.).

301. Follow up on students' progress on the job.

302. Keep students informed of their progress.

303. Consult with students' significant others concerning student progress.

304. Consult with appropriate agencies (e.g., sponsoring agencies) regarding student progress.

305. Share evaluation data with support staff.

306. Develop improved/alternative methods of reporting evaluation results (e.g., competency-based grading system, supplementing "grades" with competency profiles).

307. Devise a system for recording progress of students working at varying rates.

308. Maintain a file of each student's records.

309. Review how realistic the goals of the individualized student plan were for each student.

310. Confer with student concerning progress at point of exit.

XIII. PROFESSIONAL DEVELOPMENT

311. Analyze your own commitment to the teaching of special/exceptional students.

312. Define your personal biases, myths, and misconceptions concerning special/exceptional persons that may affect your instructional effectiveness.

313. Set goals and objectives to initiate change in your personal biases toward special/exceptional persons (i.e., to avoid basing expectations for students on stereotypes or exhibiting bias, verbally or nonverbally).

314. Identify "common" (general) characteristics of each special/exceptional group (e.g., mentally retarded), but recognize individual differences within the group.

315. Develop skills (e.g., increased observation techniques) for recognizing special/exceptional students.

316. Recognize specific indicators to measure giftedness and/or talent in a particular vocational area.

317. Recognize student characteristics that may cloud the identification of special/exceptional students.

318. Recognize the full development cycle of mentally retarded students (K-adulthood).

319. Recognize the economic realities and positive benefits of training and placing special/exceptional students (e.g., legislation encourages employers to hire special/exceptional persons; hiring them makes them self-supportive).

320. Recognize the legitimacy of different social and cultural behavior patterns and life styles.

321. Develop an understanding of the advantages of a multicultural society.

322. Increase understanding of students' cultures, life styles, and values through family and community contacts.

323. Develop a belief in the ability of special/exceptional persons to succeed (e.g., through observation of special/exceptional people performing successfully on the job).

324. Expand your concept of your professional and instructional role and responsibilities (e.g., provide input into placement decisions; be willing to accept all qualified students regardless of age, sex, etc.; be less directive with gifted/talented students; serve in a counseling role; be willing to learn from students).

325. Develop a balanced attitude concerning your responsibility for teaching both a subject and students.

326. Develop awareness of the need for, and value of, basic skills (English, math).

327. Participate in workshops or other awareness and training activities (e.g., sex equity activities; human relations training; cultural awareness activities; training in group dynamics, TA, interpersonal skills; activities simulating handicapping conditions; presentations on the characteristics and needs of special/exceptional students).

328. Complete additional course work related to special/exceptional populations.

329. Encourage district/state to offer relevant inservice/course work.

330. Keep up to date concerning state and federal legislation and guidelines relevant to special/exceptional students.

331. Read current research and literature relevant to special/exceptional students.

332. Identify existing information sources (e.g., Council for Exceptional Children).

333. Identify the functions of existing organizations specific to the needs of special/exceptional populations.

334. Participate in/support professional organizations concerned with the teaching of special/exceptional students.

335. Seek opportunities to interact, formally or informally, with special/exceptional persons to reduce any anxiety you may have about working with them.

336. Consult with persons working successfully with special/exceptional persons to determine why they're committed to such work.

337. Identify relevant ideas and materials through contacts with similar programs (school-based or community-based) and other colleagues working with special/exceptional students.

338. Keep abreast of new and emerging occupational developments.

339. Obtain first aid training specific to the needs of the sensory and physically impaired.

340. Manage the increased paper work often accompanying the placement of special/exceptional students in your class.

341. Apply for grants/write proposals to support your experimentation and innovation.

342. Participate in existing informal teacher support groups, or initiate the development of such groups if necessary (e.g., to solve mutual problems, to develop materials, to offer mutual understanding and encouragement).

343. Share your program experiences and instructional ideas (e.g., make presentations, write articles).

344. Support the passage of educational legislation affecting special/exceptional students.

345. Use student follow-up data to identify need for professional improvement on your part.

346. Identify the symptoms of teacher burn out.

347. Employ strategies for dealing with teacher burn out.

348. Persist in the face of apparent failure.

XIV. PROGRAM EVALUATION

349. Identify program goals and objectives as related to the special/exceptional student.

350. Develop formal and/or informal evaluation procedures to measure achievement of program goals and objectives.

351. Ensure that evaluation devices include items related to special/exceptional students.

352. Compare the progress of special/exceptional students against established program goals and objectives.

353. Secure feedback from individual special/exceptional students on how well the program is meeting their needs.

354. Evaluate individual instructional activities and techniques to determine their effectiveness in meeting student needs and program goals.

355. Identify the adequacy of articulation between your program and other educational programs in which your students may enroll.

356. Conduct follow-up activities concerning special/exceptional students as needed (e.g., contacts with former students, their parents, and employers).

357. Evaluate whether special/exceptional students were, in fact, provided with the least restrictive environment.

358. Use evaluation data to improve the effectiveness of your program in serving special/exceptional students.

XV. PROGRAM PROMOTION

359. Inform special/exceptional students of program-related job opportunities to increase recruitment.

360. Design special recruitment activities targeted to special/exceptional students (e.g., conduct individual and group recruiting sessions).

361. Use successful former special/exceptional students to advocate your program and assist in recruitment activities.

362. Involve B-I-L in recruiting students.

363. Enlist the aid of community members in identifying and recruiting special/exceptional students for your program.

364. Develop bias-free promotional materials.

365. Develop up-to-date specialized mailing lists for promotional materials.

366. Become an advocate for your special/exceptional students (e.g., educate employers regarding the positive qualities and characteristics of these students).

367. Make promotional presentations.

368. Use community media to advertise program.

369. Enlist community support (e.g., in the form of advocacy, voting, participation, materials, student financial aid, scholarships, co-sponsorship of projects, etc.).

370. Educate special/exceptional students' significant others about opportunities available through your vocational program.

371. Inform the educational community and community leaders of the value of your vocational program in serving special/exceptional students.

372. Provide opportunities for community members, employers, politicians, legislators, etc., to visit and observe your program.

373. Encourage B-I-L to use the facility for meetings and short courses.

374. Promote a positive image of vocational education to dispel its possible image of a dumping ground.

375. Develop forums for promoting vocational education.

376. Maintain contact with sponsoring agencies (e.g., CETA); community services; local, state, and national trade and professional organizations.

377. Enlist administrative support (e.g., for creative/alternative instructional approaches and evaluation reporting systems such as competency-based grading).

378. Ensure that counselors are aware of the career opportunities available to special/exceptional students.

379. Provide for public recognition of students' achievement.

380. Ensure the credibility of your program with employers by making certain the students you place meet the employers' requirements.

APPENDIX C

Tables (1-C through 16-C) that Report Combinations of Methods of Preparation Cited by Respondents

TABLE 1-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES
BY METHOD OF PREPARATION FOR
PROFESSIONAL TASK A: IDENTIFY (N = 1,092)

		Groups of Exceptional Students															
		Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared		793	72.6	723	66.2	759	69.5	583	53.4	805	73.8	817	74.9	533	48.8	730	66.9
Method of Preparation																	
Ed. Courses	—alone*	382	35.0	335	30.7	408	37.4	226	20.7	222	20.3	270	24.7	237	21.7	264	24.3
	—comb.**	624	57.1	540	49.5	573	52.5	327	29.9	443	40.5	491	45.0	354	32.4	510	46.7
Stud. Teaching	—alone	72	6.6	58	5.3	54	4.9	94	8.6	128	11.7	84	7.7	22	2.0	90	8.2
	—comb.	246	22.5	186	17.0	149	13.6	173	15.8	350	32.0	260	23.8	72	6.6	295	27.0
Outside Courses	—alone	33	3.0	36	3.3	40	3.7	38	3.5	43	3.9	42	3.8	18	1.6	22	2.0
	—comb.	107	9.8	105	9.6	93	8.5	68	6.2	129	11.8	139	12.7	61	5.6	76	7.0
Other	—alone	39	3.6	64	5.9	72	6.6	104	9.5	123	11.3	147	13.5	124	11.4	82	7.5
	—comb.	143	13.1	187	17.1	173	15.8	163	14.9	280	25.6	309	28.3	210	19.2	211	19.3
Ed./Stud. Teaching		117	10.7	75	6.9	53	4.9	45	4.1	92	8.4	66	6.0	26	2.4	120	11.0
Ed./Outside Courses		31	2.8	24	2.2	25	2.3	9	0.8	11	1.0	22	2.0	17	1.6	13	1.2

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 1-C (Continued)

Preparation	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	6	0.5	2	0.2	4	0.4	1	0.1	13	1.2	10	0.9	1	0.1	5	0.5
Ed./Stud. Teach/ Outside Courses	9	0.8	6	0.5	2	0.2	7	0.6	16	1.5	14	1.3	2	0.2	4	0.4
Ed./Other	46	4.2	55	5.0	52	4.8	24	2.2	39	3.6	54	4.9	47	4.3	44	4.0
Stud. Teach/Other	9	0.8	9	0.8	7	0.6	12	1.1	39	3.6	26	2.4	6	0.5	13	1.2
Ed./Stud. Teach/Other	21	1.9	22	2.0	20	1.8	10	0.9	33	3.0	31	2.8	10	0.9	40	3.7
Outside Courses/Other	10	0.9	144	1.3	8	0.7	5	0.5	10	0.9	9	0.8	7	0.6	4	0.4
Ed./Outside Courses/Other	6	0.5	9	0.8	5	0.5	4	0.4	7	0.6	13	1.2	11	1.0	5	0.5
Stud. Teach/Outside Courses/Other	0	0	0	0	1	0.1	2	0.2	6	0.5	8	0.7	1	0.1	4	0.4
Ed./Stud. Teach/Outside Courses/Other	12	1.1	14	1.3	8	0.7	2	0.2	23	2.1	21	1.9	4	0.4	19	1.7

TABLE 2-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES
BY METHOD OF PREPARATION FOR
PROFESSIONAL TASK B: PLAN INSTRUCTION FOR (N = 1,092)

		Groups of Exceptional Students															
		Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared		789	72.2	670	61.4	715	65.5	478	43.8	763	69.9	721	66.0	553	50.6	724	66.3
Method of Preparation																	
Ed. Courses	—alone*	440	40.3	359	32.9	432	39.6	224	20.5	321	29.4	357	32.7	317	29.0	324	29.7
	—comb.**	682	62.4	543	49.7	589	53.9	333	30.5	564	51.6	547	50.1	429	39.3	556	50.9
Stud. Teaching	—alone	60	5.5	55	5.0	50	4.6	74	6.8	98	9.0	72	6.6	24	2.2	77	7.1
	—comb.	273	25.0	201	18.4	167	15.3	165	15.1	322	29.5	239	21.9	89	8.0	284	26.0
Outside Courses	—alone	14	1.3	29	2.7	23	2.1	19	1.7	28	2.6	26	2.4	20	1.8	22	2.0
	—comb.	53	4.9	67	6.1	63	5.8	42	3.8	65	6.0	72	6.6	51	4.7	60	5.5
Other	—alone	25	2.3	28	2.6	38	3.5	41	3.8	48	4.4	51	4.7	69	6.3	51	4.7
	—comb.	73	6.7	81	7.4	92	8.4	70	6.4	139	12.7	133	12.2	131	12.0	137	12.5
Ed./Stud. Teaching		175	16.0	123	11.3	92	8.4	77	7.1	158	14.5	107	9.8	47	4.3	145	13.3
Ed./Outside Courses		13	1.2	16	1.5	16	1.5	10	0.9	6	0.5	8	0.7	11	1.0	10	0.9

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 2-C (Continued)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	1	0.1	1	0.1	1	0.1	2	0.2	4	0.4	5	0.5	0	0	2	0.2
Ed./Stud. Teach/ Outside Courses	13	1.2	6	0.5	9	0.8	2	0.2	9	0.8	13	1.2	3	0.3	7	0.6
Ed./Other	19	1.7	25	2.3	27	2.5	12	1.1	31	2.8	25	2.3	32	2.9	26	2.4
Stud. Teach/Other	5	0.5	6	0.5	5	0.5	5	0.5	18	1.6	13	1.2	6	0.5	11	1.0
Ed./Stud. Teach/Other	12	1.1	7	0.6	8	0.7	3	0.3	24	2.2	24	2.2	7	0.6	30	2.7
Outside Courses/Other	2	0.2	8	0.7	8	0.7	2	0.2	2	0.2	6	0.5	4	0.4	4	0.4
Ed./Outside Courses/Other	3	0.3	4	0.4	4	0.4	5	0.5	5	0.5	9	0.8	11	1.0	3	0.3
Stud. Teach/Outside Courses/Other	0	0	0	0	1	0.1	2	0.2	1	0.1	1	0.1	1	0.1	1	0.1
Ed./Stud. Teach/Outside Courses/Other	7	0.6	3	0.3	1	0.1	0	0	10	0.9	4	0.4	1	0.1	11	1.0

TABLE 3-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES BY METHOD OF PREPARATION FOR PROFESSIONAL TASK C: PROVIDE MATERIALS FOR (N = 1,092)

Preparation		Groups of Exceptional Students															
		Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared		681	62.4	581	53.2	637	58.3	441	40.4	688	63.0	649	59.4	508	46.5	664	60.8
Method of Preparation																	
Ed. Courses	—alone*	395	36.2	320	29.3	371	34.0	228	20.9	311	28.5	333	30.5	277	25.4	307	28.1
	—comb.**	580	53.1	475	43.5	517	47.3	318	29.1	519	47.5	502	46.0	390	35.7	506	46.3
Stud. Teaching	—alone	52	4.8	38	3.5	47	4.3	48	4.4	81	7.4	50	4.6	28	2.6	72	6.6
	—comb.	204	18.7	148	13.6	154	14.1	122	11.2	255	23.4	180	16.5	89	8.2	244	22.3
Outside Courses	—alone	16	1.5	22	2.0	29	2.7	23	2.1	20	1.8	25	2.3	18	1.6	21	1.9
	—comb.	57	5.2	59	5.4	68	6.2	44	4.0	63	5.8	69	6.3	54	4.9	60	5.5
Other	—alone	24	2.2	39	3.6	33	3.0	40	3.7	46	4.2	52	4.8	61	5.6	52	4.8
	—comb.	70	6.4	91	8.3	85	7.8	73	6.7	139	12.7	127	11.6	126	11.5	122	11.2
Ed./Stud. Teaching		118	10.8	86	7.9	80	7.3	59	5.4	113	10.3	91	8.3	41	3.8	121	11.1
Ed./Outside Courses		18	1.6	19	1.7	15	1.4	7	0.6	15	1.4	16	1.5	13	1.2	12	1.1

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 3-C (Continued)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/Outside Courses	2	0.2	1	0.1	2	0.2	1	0.1	4	0.4	3	0.3	2	0.2	2	0.2
Ed./Stud. Teach/Outside Courses	10	0.9	4	0.4	8	0.7	2	0.2	6	0.5	4	0.4	3	0.3	7	0.6
Ed./Other	19	1.7	25	2.3	24	2.2	13	1.2	33	3.0	29	2.7	32	2.9	18	1.6
Stud. Teach/Other	4	0.4	1	0.1	5	0.5	5	0.5	12	1.1	7	0.6	4	0.4	7	0.6
Ed./Stud. Teach/Other	12	1.1	13	1.2	9	0.8	4	0.4	30	2.7	18	1.6	11	1.0	27	2.5
Outside Courses/Other	3	0.3	5	0.5	4	0.4	5	0.5	5	0.5	8	0.7	5	0.5	4	0.4
Ed./Outside Courses/Other	2	0.2	3	0.3	7	0.6	3	0.3	4	0.4	6	0.5	13	1.2	6	0.5
Stud. Teach/Outside Courses/Other	0	0	0	0	0	0	1	0.1	2	0.2	2	0.2	0	0	0	0
Ed./Stud. Teach/Outside Courses/Other	6	0.5	5	0.5	3	0.3	2	0.2	7	0.6	5	0.5	0	0	8	0.7

TABLE 4-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES
BY METHOD OF PREPARATION FOR
PROFESSIONAL TASK D: MODIFY THE LEARNING ENVIRONMENT FOR (N = 1,092)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	666	61.0	627	57.4	723	66.2	443	40.6	656	60.1	610	55.9	486	44.5	612	56.0
Method of Preparation																
Ed. Courses —alone*	386	35.3	352	32.2	390	35.7	216	19.8	300	27.5	319	29.2	257	23.5	294	26.9
--comb.**	564	51.6	521	47.7	594	54.4	305	27.9	488	44.7	467	42.8	360	33.0	465	42.6
Stud. Teaching —alone	45	4.1	37	3.4	50	4.6	56	5.1	81	7.4	52	4.8	22	2.0	68	6.2
—comb.	184	16.8	153	14.0	172	15.8	120	11.0	234	21.4	164	15.0	80	7.3	210	19.2
Outside Courses—alone	21	1.9	27	2.5	27	2.5	27	2.5	17	1.6	20	1.8	22	2.0	19	1.7
—comb.	69	6.3	66	6.0	90	8.2	57	5.2	59	5.4	70	6.4	54	4.9	57	5.2
Other —alone	24	2.2	35	3.2	39	3.6	47	4.3	49	4.5	49	4.5	69	6.3	47	4.3
—comb.	83	7.6	92	8.4	136	12.5	85	7.8	132	12.1	115	10.5	134	12.3	122	11.2
Ed./Stud. Teaching	97	8.9	92	8.4	83	7.6	44	4.0	105	9.6	80	7.3	37	3.4	90	8.2
Ed./Outside Courses	21	1.9	20	1.8	29	2.7	10	0.9	7	0.6	16	1.5	10	0.9	12	1.1

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 4-C (Continued)

Preparation	Gifted and Talented No.	Gifted and Talented %	Mentally Retarded No.	Mentally Retarded %	Physically or Sensory Impaired No.	Physically or Sensory Impaired %	Limited English No.	Limited English %	Economically Disadvantaged No.	Economically Disadvantaged %	Racial/ Ethnic Minority No.	Racial/ Ethnic Minority %	Adults in Retraining No.	Adults in Retraining %	Nontraditional for Their Sex No.	Nontraditional for Their Sex %
Stud. Teach/ Outside Courses	3	0.3	1	0.1	2	0.2	1	0.1	5	0.5	5	0.5	2	0.2	2	0.2
Ed./Stud. Teach/ Outside Courses	10	0.9	6	0.5	6	0.5	4	0.4	9	0.8	3	0.3	2	0.2	5	0.5
Ed./Other	27	2.5	33	3.0	49	4.5	14	1.3	38	3.5	25	2.3	34	3.1	24	2.2
Stud. Teach/Other	4	0.4	3	0.3	7	0.6	4	0.4	9	0.8	8	0.7	4	0.4	6	0.5
Ed./Stud. Teach/Other	14	1.3	9	0.8	15	1.4	5	0.5	15	1.4	7	0.6	9	0.8	26	2.4
Outside Courses/Other	1	0.1	2	0.2	4	0.4	3	0.3	5	0.5	8	0.7	6	0.5	3	0.3
Ed./Outside Courses/Other	2	0.2	5	0.5	13	1.2	6	0.5	6	0.5	9	0.8	8	0.7	3	0.3
Stud. Teach/Outside Courses/Other	4	0.4	1	0.1	0	0	0	0	2	0.2	1	0.1	1	0.1	2	0.2
Ed./Stud. Teach/Outside Courses/Other	7	0.6	4	0.4	9	0.8	6	0.5	8	0.7	8	0.7	3	0.3	11	1.0

Groups of Exceptional Students (column group heading)

TABLE 5-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES
BY METHOD OF PREPARATION FOR
PROFESSIONAL TASK E: PROMOTE THE PEER ACCEPTANCE OF (N = 1,092)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	753	69.0	701	64.2	758	69.4	563	51.6	756	69.2	745	68.2	501	45.9	686	62.8
Method of Preparation																
Ed. Courses —alone*	329	30.1	282	25.8	337	30.9	207	19.0	251	23.0	285	26.1	222	20.3	233	21.3
—comb.**	552	50.5	501	45.9	547	50.1	344	31.5	480	44.0	502	46.0	342	31.3	469	42.9
Stud. Teaching —alone	93	8.5	77	7.1	85	7.8	83	7.6	110	10.1	83	7.6	24	2.2	86	7.9
—comb.	276	25.3	249	22.8	223	20.4	195	17.9	321	29.4	268	24.5	80	7.3	290	26.6
Outside Courses—alone	29	2.7	28	2.6	25	2.3	24	2.2	32	2.9	29	2.7	22	2.0	20	1.8
—comb.	95	8.7	96	8.8	95	8.7	71	6.5	112	10.3	120	11.0	70	6.4	89	8.2
Other —alone	60	5.5	71	6.5	76	7.0	84	7.7	89	8.2	85	7.8	98	9.0	80	7.3
—comb.	147	13.5	174	15.9	183	16.8	162	14.8	208	19.0	214	19.6	177	16.2	213	19.5
Ed./Stud. Teaching	114	10.4	104	9.5	87	8.0	66	6.0	110	10.1	86	7.9	34	3.1	104	9.5
Ed./Outside Courses	24	2.2	18	1.6	26	2.4	13	1.2	18	1.6	25	2.3	16	1.5	17	1.6

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 5-C (Continued)

Preparation	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditionalfor Their Sex	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	2	0.2	3	0.3	4	0.4	2	0.2	9	0.8	9	0.8	2	0.2	2	0.2
Ed./Stud. Teach/ Outside Courses	15	1.4	15	1.4	11	1.0	6	0.5	18	1.6	14	1.3	4	0.4	11	1.0
Ed./Other	25	2.3	32	2.9	50	4.6	26	2.4	28	2.6	33	3.0	41	3.8	29	2.7
Stud. Teach/Other	12	1.1	14	1.3	12	1.1	14	1.3	25	2.3	24	2.2	2	0.2	19	1.7
Ed./Stud. Teach/Other	25	2.3	25	2.3	16	1.5	12	1.1	31	2.8	29	2.7	10	0.9	46	4.2
Outside Courses/Other	3	0.3	7	0.6	9	0.8	9	0.8	9	0.8	10	0.9	10	0.9	9	0.8
Ed./Outside Courses/Other	7	0.6	14	1.3	12	1.1	5	0.5	8	0.7	10	0.9	12	1.1	8	0.7
Stud. Teach/Outside Courses/Other	2	0.2	0	0	0	0	3	0.3	2	0.2	3	0.3	1	0.1	1	0.1
Ed./Stud. Teach/Outside Courses/Other	13	1.2	11	1.0	8	0.7	9	0.8	16	1.5	20	1.8	3	0.3	21	1.9

TABLE 6-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES BY METHOD OF PREPARATION FOR PROFESSIONAL TASK F: USE SPECIAL INSTRUCTIONAL TECHNIQUES FOR (N = 1,092)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	818	74.9	726	66.5	788	72.2	576	52.7	769	70.4	733	67.1	564	51.6	685	62.7
Method of Preparation																
Ed. Courses —alone*	419	38.4	361	33.1	424	38.8	295	27.0	330	30.2	360	33.0	302	27.7	292	26.7
—comb.**	714	65.4	616	56.4	658	60.3	440	40.3	589	53.9	582	53.3	453	41.5	539	49.4
Stud. Teaching —alone	48	4.4	40	3.7	60	5.5	63	5.8	79	7.2	60	5.5	24	2.2	60	5.5
—comb.	284	26.0	235	21.5	228	20.9	177	16.2	304	27.8	244	22.3	106	9.7	267	24.5
Outside Courses—alone	20	1.8	25	2.3	28	2.6	22	2.0	30	2.7	26	2.4	24	2.2	21	1.9
—comb.	[illegible]	9.4	102	9.3	100	9.2	66	6.0	106	9.7	101	9.2	77	7.1	85	7.8
Other —alone	27	2.5	34	3.1	31	2.8	40	3.7	41	3.8	43	3.9	54	4.9	43	3.9
—comb.	108	9.9	111	10.2	113	10.3	95	8.7	147	13.5	134	12.3	133	12.2	148	13.6
Ed./Stud. Teaching	164	15.0	138	12.6	118	10.8	82	7.5	137	12.5	109	10.0	54	4.9	133	12.2
Ed./Outside Courses	22	2.0	24	2.2	29	2.7	7	0.6	13	1.2	18	1.6	20	1.8	17	1.6

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 6-C (Continued)

Preparation	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	4	0.4	3	0.3	0	0	1	0.1	6	0.5	5	0.5	1	0.1	2	0.2
Ed./Stud. Teach/ Outside Courses	33	3.0	24	2.2	16	1.5	11	1.0	27	2.5	21	1.9	6	0.5	12	1.1
Ed./Other	34	3.1	31	2.8	34	3.1	20	1.8	35	3.2	26	2.4	40	3.7	31	2.8
Stud. Teach/Other	1	0.1	2	0.2	4	0.4	4	0.4	15	1.4	10	0.9	4	0.4	13	1.2
Ed./Stud. Teach/Other	22	2.0	18	1.6	17	1.6	6	0.5	26	2.4	24	2.2	9	0.8	28	2.6
Outside Courses/Other	4	0.4	6	0.5	7	0.6	6	0.5	7	0.6	4	0.4	4	0.4	5	0.5
Ed./Outside Courses/Other	8	0.7	10	0.9	7	0.6	9	0.8	9	0.8	12	1.1	14	1.3	9	0.8
Stud. Teach/Outside Courses/Other	0	0	0	0	0	0	0	[illegible]	2	0.2	3	0.3	0	0	2	0.2
Ed./Stud. Teach/Outside Courses/Other	12	1.1	10	0.9	13	1.2	10	0.9	12	1.1	12	1.1	8	0.7	17	1.6

TABLE 7-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES BY METHOD OF PREPARTION FOR PROFESSIONAL TASK G: IMPROVE YOUR ABILITY TO COMMUNICATE WITH (N = 1,092)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	777	71.2	731	66.9	774	70.9	623	57.1	809	74.1	784	71.8	599	54.9	717	65.7
Method of Preparation																
Ed. Courses —alone*	323	29.6	280	25.6	321	29.4	223	20.4	255	23.4	275	25.2	255	23.4	244	20.5
—comb.**	592	54.2	533	48.6	552	50.8	397	36.4	526	48.2	521	47.7	410	37.5	482	44.1
Stud. Teaching —alone	83	7.6	66	6.0	81	7.4	94	8.6	132	12.1	102	9.3	35	3.2	94	8.6
—comb.	290	26.6	245	22.4	240	22.0	223	20.4	363	33.2	297	27.2	109	10.0	303	27.7
Outside Courses—alone	30	2.7	40	3.7	37	3.4	28	2.6	35	3.2	32	2.9	29	2.7	30	2.7
—comb.	109	10.0	109	10.0	105	9.7	87	8.0	111	10.2	133	12.2	86	7.9	114	10.4
Other —alone	49	4.5	69	6.3	72	6.6	81	7.4	79	7.2	83	7.6	104	9.5	74	6.8
—comb.	160	15.4	201	18.4	206	18.9	168	15.4	230	21.1	237	21.7	212	19.4	216	19.8
Ed./Stud. Teaching	127	11.6	108	9.9	92	8.4	77	7.1	122	11.2	92	8.4	42	3.8	114	10.4
Ed./Outside Courses	28	2.6	25	2.3	26	2.4	20	1.8	15	1.4	26	2.4	22	2.0	24	2.2

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 7-C (Continued)

	Groups of Exceptional Students															
Preparation	Gifted and Talented No.	%	Mentally Retarded No.	%	Physically or Sensory Impaired No.	%	Limited English No.	%	Economically Disadvantaged No.	%	Racial/ Ethnic Minority No.	%	Adults in Retraining No.	%	Nontraditional for Their Sex No.	%
Stud. Teach/ Outside Courses	4	0.4	1	0.1	0	0	1	0.1	2	0.2	4	0.4	1	0.1	3	0.3
Ed./Stud. Teach/ Outside Courses	14	1.3	10	0.9	11	1.0	12	1.1	18	1.6	16	1.5	3	0.3	12	1.1
Ed./Other	41	3.8	56	5.1	58	5.3	33	3.0	46	4.2	44	4.0	58	5.3	38	3.5
Stud. Teach/Other	11	1.0	13	1.2	15	1.4	11	1.0	23	2.1	21	1.9	7	0.6	18	1.6
Ed./Stud. Teach/Other	34	3.1	30	2.7	29	2.7	17	1.6	41	3.8	34	3.1	12	1.1	41	3.8
Outside Courses/Other	7	0.6	7	0.6	13	1.2	7	0.6	7	0.6	15	1.4	10	0.9	13	1.2
Ed./Outside Courses/Other	9	0.8	9	0.8	7	0.6	8	0.7	9	0.8	12	1.1	12	1.1	11	1.0
Stud. Teach/Outside Courses/Other	1	0.1	2	0.2	1	0.1	4	0.4	5	0.5	6	0.5	3	0.3	3	0.3
Ed./Stud. Teach/Outside Courses/Other	16	1.5	15	1.4	11	1.0	7	0.6	20	1.8	22	2.0	6	0.5	18	1.6

TABLE 8-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES BY METHOD OF PREPARATION FOR PROFESSIONAL TASK H: IMPROVE THE COMMUNICATION SKILLS OF (N = 1,092)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	733	67.1	638	58.4	683	62.6	599	54.9	772	70.7	742	68.0	548	50.2	678	62.1
Method of Preparation																
Ed. Courses --alone*	305	27.9	256	23.4	305	27.9	209	19.1	240	22.0	266	24.4	238	21.8	231	21.2
--comb.**	524	48.0	448	41.0	492	45.1	360	33.0	495	45.3	482	44.1	369	33.8	448	41.0
Stud. Teaching --alone	95	8.7	78	7.1	77	7.1	93	8.5	121	11.1	101	9.2	39	3.6	89	8.2
--comb.	275	25.2	227	20.8	210	19.2	214	19.6	347	31.8	285	26.1	110	10.1	282	25.8
Outside Courses--alone	34	3.1	30	2.7	33	3.0	30	2.7	33	3.0	31	2.8	26	2.4	21	1.9
--comb.	99	9.1	91	8.3	92	8.4	88	8.1	108	9.9	115	10.5	76	7.0	92	8.4
Other --alone	57	5.2	58	5.3	58	5.3	85	7.8	82	7.5	85	7.8	92	8.4	79	7.2
--comb.	147	13.5	143	13.1	147	13.5	161	14.7	212	19.4	211	19.3	180	16.5	206	18.9
Ed./Stud. Teaching	115	10.5	93	8.5	88	8.1	75	6.9	135	12.4	98	9.0	44	4.0	100	9.2
Ed./Outside Courses	22	2.0	25	2.3	22	2.0	18	1.6	18	1.6	18	1.6	16	1.5	17	1.6

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 8-C (Continued)

Preparation	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	5	0.5	4	0.4	4	0.4	5	0.5	4	0.4	5	0.5	2	0.2	4	0.4
Ed./Stud. Teach/ Outside Courses	10	0.9	9	0.8	7	0.6	8	0.7	9	0.8	12	1.1	3	0.3	10	0.9
Ed./Other	27	2.5	31	2.8	38	3.5	27	2.5	35	3.2	33	3.0	49	4.5	30	2.7
Stud. Teach/Other	10	0.9	10	0.9	8	0.7	10	0.9	20	1.8	19	1.7	5	0.5	25	2.3
Ed./Stud. Teach/Other	25	2.3	21	1.9	17	1.6	12	1.1	31	2.8	25	2.3	5	0.5	32	2.9
Outside Courses/Other	5	0.5	7	0.6	9	0.8	11	1.0	10	0.9	13	1.2	8	0.7	6	0.5
Ed./Outside Courses/Other	8	0.7	4	0.4	8	0.7	5	0.5	7	0.6	11	1.0	9	0.8	12	1.1
Stud. Teach/Outside Courses/Other	3	0.3	3	0.3	2	0.2	5	0.5	7	0.6	6	0.5	7	0.6	6	0.5
Ed./Stud. Teach/Outside Courses/Other	12	1.1	9	0.8	7	0.6	6	0.5	20	1.8	19	1.7	5	0.5	16	1.5

TABLE 9-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES BY METHOD OF PREPARATION FOR PROFESSIONAL TASK I: ASSESS THE PROGRESS OF (N = 1,092)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	772	70.1	689	63.1	738	67.6	586	53.7	777	71.2	730	66.9	541	49.5	685	62.7
Method of Preparation																
Ed. Courses —alone*	390	35.7	331	30.3	387	35.4	284	26.0	327	29.9	351	32.1	313	28.7	301	27.6
—comb.**	642	58.8	546	50.0	591	54.1	435	39.8	596	54.6	586	53.7	427	39.1	530	48.6
Stud. Teaching --alone	80	7.3	69	6.3	74	6.8	92	8.4	107	9.8	74	6.8	32	2.9	88	8.1
—comb.	294	26.9	245	22.4	230	21.1	213	19.5	343	31.4	269	24.6	93	8.5	292	26.7
Outside Courses--alone	23	2.1	29	2.7	27	2.5	20	1.8	22	2.0	18	1.6	18	1.6	17	1.6
—comb.	70	6.4	80	7.3	74	6.8	56	5.1	78	7.1	81	7.4	52	4.8	60	5.5
Other —alone	23	2.1	37	3.4	37	3.4	34	3.1	36	3.3	33	3.0	55	5.0	36	3.3
--comb.	68	6.2	85	7.8	96	8.8	66	6.0	115	10.5	104	9.5	117	10.7	117	10.7
Ed./Stud. Teaching	175	16.0	136	12.5	118	10.8	99	9.1	171	15.7	139	12.7	42	3.8	136	12.5
Ed./Outside Courses	21	1.9	25	2.3	28	2.6	16	1.5	20	1.8	24	2.2	14	1.3	15	1.4

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 9-C (Continued)

Preparation	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	1	0.1	1	0.1	0	0	0	0	1	0.1	5	0.5	0	0	2	0.2
Ed./Stud. Teach/ Outside Courses	14	1.3	13	1.2	8	0.7	9	0.8	14	1.3	15	1.4	5	0.5	9	0.8
Ed./Other	17	1.6	18	1.6	25	2.3	12	1.1	23	2.1	27	2.5	37	3.4	17	1.6
Stud. Teach/Other	2	0.2	4	0.4	6	0.5	3	0.3	10	0.9	6	0.5	4	0.4	11	1.0
Ed./Stud. Teach/Other	15	1.4	14	1.3	17	1.6	6	0.5	25	2.3	19	1.7	6	0.5	36	3.3
Outside Courses/Other	1	0.1	3	0.3	3	0.3	2	0.2	4	0.4	4	0.4	4	0.4	1	0.1
Ed./Outside Courses/Other	3	0.3	1	0.1	1	0.1	5	0.5	2	0.2	4	0.4	7	0.6	6	0.5
Stud. Teach/Outside Courses/Other	0	0	0	0	0	0	0	0	1	0.1	4	0.4	1	0.1	0	0
Ed./Stud. Teach/Outside Courses/Other	7	0.6	8	0.7	7	0.6	4	0.4	14	1.3	7	0.6	3	0.3	10	0.9

TABLE 10-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES
BY METHOD OF PREPARATION FOR
PROFESSIONAL TASK J: COUNSEL STUDENTS WITH PERSONAL-SOCIAL PROBLEMS (N = 1,092)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	743	68.0	608	55.7	682	62.5	547	50.1	802	73.4	733	67.1	527	48.3	695	63.6
Method of Preparation																
Ed. Courses —alone*	245	22.4	215	19.7	251	23.0	162	14.8	186	17.0	205	18.8	182	16.7	197	18.0
—comb.**	477	43.7	412	37.3	457	41.8	314	28.8	456	41.8	425	38.9	322	29.5	422	38.6
Stud. Teaching —alone	99	9.1	72	6.6	75	6.9	79	7.2	141	12.9	104	9.5	35	3.2	93	8.5
—comb.	289	26.5	223	20.4	221	20.2	204	18.7	387	35.4	296	27.1	106	9.7	290	26.6
Outside Courses—alone	24	2.2	26	2.4	19	1.7	25	2.3	25	2.3	30	2.7	33	3.0	25	2.3
—comb.	124	11.4	92	8.4	107	9.8	93	8.5	127	11.6	132	12.1	99	9.1	109	10.0
Other —alone	95	8.7	66	6.0	86	7.9	93	8.5	110	10.1	110	10.1	111	10.2	98	9.0
—comb.	235	21.5	178	16.3	219	20.1	178	16.3	285	26.1	270	24.7	215	19.7	255	23.4
Ed./Stud. Teaching	84	7.7	73	6.7	69	6.3	63	5.8	113	10.3	75	6.9	33	3.0	82	7.5
Ed./Outside Courses	28	2.6	26	2.4	31	2.8	24	2.2	26	2.4	24	2.2	22	2.0	21	1.9

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 10-C (Continued)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	8	0.7	8	0.7	7	0.6	8	0.7	12	1.1	11	1.0	2	0.2	5	0.5
Ed./Stud. Teach/ Outside Courses	20	1.8	10	0.9	11	1.0	8	0.7	14	1.3	14	1.3	5	0.5	17	1.6
Ed./Other	39	3.6	42	3.8	50	4.6	25	2.3	41	3.8	37	3.4	47	4.3	40	3.7
Stud. Teach/Other	24	2.2	15	1.4	21	1.9	15	1.4	35	3.2	29	2.7	8	0.7	37	3.4
Ed./Stud. Teach/Other	33	3.0	33	3.0	23	2.1	17	1.6	49	4.5	41	3.8	12	1.1	39	3.6
Outside Courses/Other	13	1.2	6	0.5	14	1.3	11	1.0	19	1.7	20	1.8	15	1.4	13	1.2
Ed./Outside Courses/Other	10	0.9	4	0.4	10	0.9	3	0.3	8	0.7	11	1.0	11	1.0	11	1.0
Stud. Teach/Outside Courses/Other	3	0.3	3	0.3	3	0.3	2	0.2	4	0.4	4	0.4	1	0.1	2	0.2
Ed./Stud. Teach/Outside Courses/Other	18	1.6	9	0.8	12	1.1	12	1.1	19	1.7	18	1.6	10	0.9	15	1.4

TABLE 11-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES BY METHOD OF PREPARATION FOR PROFESSIONAL TASK K: DEVELOP THE CAREER PLANNING SKILLS OF (N = 1,092)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	746	68.3	545	49.9	628	57.5	521	47.7	787	72.1	732	67.0	538	49.3	681	62.4
Method of Preparation																
Ed. Courses —alone*	316	28.9	263	24.1	305	27.9	226	20.7	283	25.9	294	26.9	244	22.3	247	22.6
—comb.**	553	50.6	413	37.8	470	43.0	362	33.2	530	48.5	503	46.1	373	34.2	481	44.0
Stud. Teaching —alone	79	7.2	51	4.7	59	5.4	57	5.2	101	9.2	77	7.1	35	3.2	74	6.8
—comb.	274	25.1	157	14.4	166	15.2	164	15.0	310	28.4	240	22.0	94	8.6	256	23.4
Outside Courses—alone	28	2.6	27	2.5	23	2.1	23	2.1	32	2.9	33	3.0	23	2.1	28	2.6
—comb	97	8.9	80	7.3	72	6.6	67	6.1	101	9.8	106	9.7	71	6.5	95	8.7
Other —alone	52	4.8	39	3.6	59	5.4	59	5.4	79	7.2	82	7.5	89	8.2	70	6.4
—comb.	164	15.0	113	10.3	147	13.5	131	12.0	212	19.4	202	18.5	183	16.8	204	18.7
Ed./Stud. Teaching	121	11.1	60	5.5	66	6.0	64	5.9	120	11.0	86	7.9	38	3.5	98	9.0
Ed./Outside Courses	20	1.8	17	1.6	19	1.7	9	0.8	19	1.7	20	1.8	10	0.9	14	1.3

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 11-C (Continued)

Preparation	Gifted and Talented No.	%	Mentally Retarded No.	%	Physically or Sensory Impaired No.	%	Limited English No.	%	Economically Disadvantaged No.	%	Racial/ Ethnic Minority No.	%	Adults in Retraining No.	%	Nontraditional for Their Sex No.	%
Stud. Teach/ Outside Courses	6	0.5	4	0.4	4	0.4	3	0.3	7	0.6	4	0.4	2	0.2	3	0.3
Ed./Stud. Teach/ Outside Courses	12	1.1	10	0.9	5	0.5	8	0.7	14	1.3	16	1.5	4	0.4	13	1.2
Ed./Other	35	3.2	30	2.7	42	3.8	24	2.2	41	3.8	42	3.8	52	4.8	45	4.1
Stud. Teach/Other	18	1.6	4	0.4	5	0.5	8	0.7	23	2.1	18	1.6	2	0.2	14	1.3
Ed./Stud. Teach/Other	28	2.6	18	1.6	20	1.8	16	1.5	33	3.0	27	2.5	7	0.6	38	3.5
Outside Courses/Other	9	0.8	6	0.5	7	0.6	7	0.6	13	1.2	11	1.0	12	1.1	9	0.8
Ed./Outside Courses/Other	12	1.1	6	0.5	7	0.6	9	0.8	10	0.9	10	0.9	14	1.3	12	1.1
Stud. Teach/Outside Courses/Other	1	0.1	1	0.1	0	0.1	2	0.2	2	0.2	4	0.4	2	0.2	2	0.2
Ed./Stud. Teach/Outside Courses/Other	9	0.8	9	0.8	6	0.5	6	0.5	10	0.9	8	0.7	4	0.4	14	1.3

TABLE 12-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES BY METHOD OF PREPARATION FOR PROFESSIONAL TASK L: ASSIST STUDENTS TO DEVELOP LIFE-COPING SKILLS (N = 1,092)

	Groups of Exceptional Students															
Preparation	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	719	65.8	589	53.9	645	59.1	521	47.7	778	71.2	717	65.7	529	48.4	688	63.0
Method of Preparation																
Ed. Courses —alone*	260	23.8	229	21.0	271	24.8	186	17.0	207	19.0	239	21.9	205	18.8	218	20.0
—comb.**	512	46.9	426	39.0	461	42.2	333	30.5	502	46.0	472	43.2	354	32.4	459	42.0
Stud. Teaching —alone	75	6.9	56	5.1	65	6.0	66	6.0	107	9.8	84	7.7	30	2.7	77	7.1
—comb.	264	24.2	185	16.9	185	16.9	173	15.8	362	33.2	268	24.5	104	9.5	271	24.8
Outside Courses—alone	30	2.7	23	2.1	26	2.4	28	2.6	31	2.8	28	2.6	23	2.1	25	2.3
—comb.	114	10.4	96	8.8	99	9.1	87	8.0	132	12.1	123	11.3	97	8.9	100	9.2
Other —alone	68	6.2	61	5.6	66	6.0	70	6.4	84	7.7	86	7.9	92	8.4	83	7.6
—comb.	205	18.8	161	14.7	180	16.5	155	14.2	254	23.3	228	20.9	199	18.2	228	20.9
Ed./Stud. Teaching	105	9.6	76	7.0	61	5.6	56	5.1	126	11.5	89	8.2	41	3.8	105	9.6
Ed./Outside Courses	75	2.3	32	2.9	30	2.7	22	2.0	29	2.7	28	2.6	24	2.2	20	1.8

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 12-C (Continued)

Preparation	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	2	0.2	2	0.2	6	0.5	2	0.2	5	0.5	4	0.4	1	0.1	2	0.2
Ed./Stud. Teach/ Outside Courses	17	1.6	10	0.9	6	0.5	6	0.5	19	1.7	17	1.6	6	0.5	13	1.2
Ed./Other	46	4.2	40	3.7	46	4.2	23	2.1	41	3.8	40	3.7	46	4.2	46	4.2
Stud. Teach/Other	18	1.6	12	1.1	10	0.9	13	1.2	33	3.0	24	2.2	8	0.7	26	2.4
Ed./Stud. Teach/Other	33	3.0	19	1.7	27	2.5	20	1.8	48	4.4	32	2.9	10	0.9	33	3.0
Outside Courses/Other	12	1.1	8	0.7	10	0.9	9	0.8	12	1.1	15	1.4	18	1.6	14	1.3
Ed./Outside Courses/Other	14	1.3	11	1.0	11	1.0	10	0.9	12	1.1	13	1.2	17	1.6	11	1.0
Stud. Teach/Outside Courses/Other	2	0.2	1	0.1	1	0.1	0	0	4	0.4	4	0.4	3	0.3	2	0.2
Ed./Stud. Teach/Outside Courses/Other	12	1.1	9	0.8	9	0.8	10	0.9	20	1.8	14	1.3	5	0.5	13	1.2

TABLE 13-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES
BY METHOD OF PREPARATION FOR
PROFESSIONAL TASK M: PREPARE STUDENTS FOR EMPLOYABILITY (N = 1,092)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	704	64.5	518	47.4	609	55.8	460	42.1	760	69.6	702	64.3	545	49.9	680	62.3
Method of Preparation																
Ed. Courses —alone*	303	27.7	262	24.0	323	29.6	208	19.0	285	26.1	313	28.7	266	24.4	275	25.2
—comb.**	562	51.5	413	37.8	476	43.6	333	30.5	546	50.0	520	47.6	396	36.3	495	45.3
Stud. Teaching —alone	53	4.9	26	2.4	29	2.7	37	3.4	81	7.4	58	5.3	21	1.9	62	5.7
—comb.	248	22.7	125	11.4	130	11.9	123	11.3	280	25.6	212	19.4	81	7.4	228	20.9
Outside Courses—alone	21	1.9	23	2.1	26	2.4	24	2.2	28	2.6	27	2.5	30	2.7	20	1.8
—comb.	91	8.3	62	5.7	76	7.0	64	5.9	114	10.4	97	8.9	85	7.8	94	8.6
Other —alone	53	4.9	45	4.1	58	5.3	49	4.5	71	6.5	65	6.0	76	7.0	73	6.7
—comb.	166	15.2	120	11.0	139	12.7	114	10.4	212	19.4	189	17.3	183	16.8	206	18.9
Ed./Stud. Teaching	123	11.3	63	5.8	60	5.5	56	5.1	111	10.2	84	7.7	27	2.5	86	7.9
Ed./Outside Courses	22	2.0	18	1.6	24	2.2	13	1.2	25	2.3	19	1.7	11	1.0	15	1.4

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 13-C (Continued)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	3	0.3	1	0.1	4	0.4	3	0.3	4	0.4	4	0.4	2	0.2	4	0.4
Ed./Stud. Teach/ Outside Courses	13	1.2	5	0.5	4	0.4	5	0.5	14	1.3	8	0.7	5	0.5	12	1.1
Ed./Other	42	3.8	35	3.2	37	3.4	30	2.7	48	4.4	43	3.9	52	4.8	42	3.8
Stud. Teach/Other	8	0.7	6	0.5	8	0.7	5	0.5	18	1.6	17	1.6	4	0.4	15	1.4
Ed./Stud. Teach/Other	31	2.8	19	1.7	18	1.6	11	1.0	32	2.9	25	2.3	14	1.3	33	3.0
Outside Courses/Other	2	0.2	4	0.4	6	0.5	7	0.6	7	0.6	8	0.7	14	1.3	11	1.0
Ed./Outside Courses/Other	13	1.2	6	0.5	5	0.5	6	0.5	16	1.5	15	1.4	15	1.4	16	1.5
Stud. Teach/Outside Courses/Other	2	0.2	0	0	2	0.2	2	0.2	5	0.5	3	0.3	2	0.2	0	0
Ed./Stud. Teach/Outside Courses/Other	15	1.4	5	0.5	5	0.5	4	0.4	15	1.4	13	1.2	6	0.5	16	1.5

TABLE 14-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES
BY METHOD OF PREPARATION FOR
PROFESSIONAL TASK N: EVALUATE A PROGRAM TO DETERMINE ITS EFFECTIVENESS (N = 1,092)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	600	54.9	509	46.6	561	51.4	454	41.6	625	57.2	597	54.7	481	44.0	566	51.8
Method of Preparation																
Ed. Courses —alone*	371	34.0	317	29.0	348	31.9	267	24.5	326	29.9	327	29.9	303	27.7	299	27.4
—comb.**	521	47.7	447	40.9	473	43.3	356	32.6	485	44.4	468	42.9	393	36.0	444	40.7
Stud. Teaching —alone	42	3.8	24	2.2	42	3.8	45	4.1	69	6.3	56	5.1	19	1.7	57	5.2
—comb.	156	14.3	115	10.5	124	11.4	109	10.0	190	17.4	155	14.2	64	5.9	161	14.7
Outside Courses—alone	13	1.2	14	1.3	17	1.6	12	1.1	21	1.9	22	2.0	23	2.1	15	1.4
—comb.	56	5.1	54	4.9	53	4.5	42	3.8	70	6.4	70	6.4	64	5.9	58	5.3
Other —alone	17	1.6	13	1.2	24	2.2	32	2.9	30	2.7	33	3.0	36	3.3	35	3.2
—comb.	52	4.8	57	5.2	64	5.9	58	5.3	90	8.2	88	8.1	84	7.7	98	9.0
Ed./Stud. Teaching	90	8.2	68	6.2	61	5.6	48	4.4	84	7.7	72	6.6	31	2.8	70	6.4
Ed./Outside Courses	22	2.0	23	2.1	22	2.0	16	1.5	21	1.9	25	2.3	16	1.5	16	1.5

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 14-C (Continued)

Preparation	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	0	0	0	0.1	0	0	1	0.1	3	0.3	1	0.1	0	0	1	0.1
Ed./Stud. Teach/ Outside Courses	10	0.9	5	0.5	7	0.6	7	0.6	11	0.1	6	0.5	5	0.5	10	0.9
Ed./Other	13	1.2	17	1.6	21	1.9	12	1.1	26	2.4	22	2.0	22	2.0	29	2.7
Stud. Teach/Other	3	0.3	6	0.5	4	0.4	4	0.4	11	1.0	9	0.8	1	0.1	7	0.6
Ed./Stud. Teach/Other	8	0.7	10	0.9	8	0.7	4	0.4	9	0.8	8	0.7	5	0.5	11	1.0
Outside Courses/Other	3	0.3	4	0.4	0	0	4	0.4	6	0.5	8	0.7	9	0.8	7	0.6
Ed./Outside Courses/Other	5	0.5	6	0.5	5	0.5	2	0.2	5	0.5	5	0.5	8	0.7	4	0.4
Stud. Teach/Outside Courses/Other	1	0.1	0	0	1	0.1	0	0	0	0	0	0	0	0	0	0
Ed./Stud. Teach/Outside Courses/Other	2	0.2	1	0.1	1	0.1	0	0	3	0.3	3	0.3	3	0.3	5	0.5

TABLE 15-C

NUMBER AND PERCENTAGE OF PREPARED GRADUATES
BY METHOD OF PREPARATION FOR
PROFESSIONAL TASK O: PROMOTE YOUR PROGRAM TO ATTRACT/RECRUIT (N = 1,092)

		Groups of Exceptional Students															
		Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared		618	56.6	473	43.3	544	49.8	458	41.9	641	58.7	615	56.3	521	47.7	623	57.1
Method of Preparation																	
Ed. Courses	—alone*	294	26.9	255	23.4	292	26.7	221	20.2	270	24.7	291	26.6	253	23.2	264	24.2
	—comb.**	484	44.3	379	34.7	428	39.2	333	30.5	473	43.3	456	41.8	376	34.4	458	41.9
Stud. Teaching	—alone	53	4.9	32	2.9	39	3.6	43	3.9	72	6.6	58	5.3	35	3.2	50	4.6
	—comb.	204	18.7	119	10.9	131	12.0	127	11.6	226	20.7	185	16.9	107	9.8	207	19.0
Outside Courses	—alone	23	2.1	14	1.3	16	1.5	13	1.2	15	1.4	13	1.2	17	1.6	17	1.6
	—comb.	74	6.8	50	4.6	60	5.5	53	4.9	68	6.2	66	6.0	59	5.4	68	6.2
Other	—alone	43	3.9	35	3.2	50	4.6	54	4.9	65	6.0	65	6.0	73	6.7	71	6.5
	—comb.	134	12.3	109	10.0	123	11.3	120	11.0	160	14.7	156	14.3	168	15.4	189	17.3
Ed./Stud. Teaching		91	8.3	46	4.2	52	4.8	47	4.3	99	9.1	74	6.8	33	3.0	87	8.0
Ed./Outside Courses		12	1.1	9	0.8	14	1.3	6	0.5	12	1.1	9	0.8	7	0.6	5	0.5

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 15-C (Continued)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	2	0.2	1	0.1	1	0.1	1	0.1	4	0.4	5	0.5	2	0.2	3	0.3
Ed./Stud. Teach/ Outside Courses	9	0.8	7	0.6	7	0.6	7	0.6	9	0.8	9	0.8	6	0.5	8	0.7
Ed./Other	27	2.5	29	2.7	28	2.6	21	1.9	36	3.3	33	3.3	44	4.0	40	3.7
Stud. Teach/Other	9	0.8	8	0.7	6	0.5	7	0.6	6	0.5	7	0.6	9	0.8	16	1.5
Ed./Stud. Teach/Other	27	2.5	18	1.6	17	1.6	12	1.1	25	2.3	21	1.9	15	1.4	27	2.5
Outside Courses/Other	3	0.3	3	0.3	3	0.3	6	0.5	5	0.5	9	0.8	8	0.7	6	0.5
Ed./Outside Courses/Other	12	1.1	9	0.8	10	0.9	10	0.9	12	1.1	10	0.9	12	1.1	13	1.2
Stud. Teach/Outside Courses/Other	1	0.1	1	0.1	1	0.1	1	0.1	1	0.1	2	0.2	1	0.1	2	0.2
Ed./Stud. Teach/Outside Courses/Other	12	1.1	6	0.5	8	0.7	9	0.8	10	0.9	9	0.8	6	0.5	14	1.3

TABLE 16-C

NUMBER AND PERCENTAGE OF PREPARED STUDENTS
BY METHOD OF PREPARATION FOR
PROFESSIONAL TASK P: CONTINUE YOUR PROFESSIONAL DEVELOPMENT RELATIVE TO TEACHING (N = 1,092)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Prepared	784	71.8	690	63.2	730	66.8	615	56.3	791	72.4	764	70.0	647	59.2	736	67.4
Method of Preparation																
Ed. Courses —alone*	322	29.5	300	27.5	310	28.4	249	27.8	293	26.8	309	28.3	274	25.1	283	25.9
—comb.**	574	52.6	502	46.0	521	47.7	419	38.4	542	49.6	531	48.6	449	41.1	506	46.3
Stud. Teaching —alone	48	4.4	37	3.4	41	3.8	37	3.4	54	4.9	36	3.3	28	2.6	46	4.2
—comb.	206	18.9	153	14.0	155	14.2	132	12.1	205	18.8	173	15.8	105	9.6	187	17.1
Outside Courses—alone	39	3.6	38	3.5	38	3.5	35	3.2	39	3.6	40	3.7	25	2.3	34	3.1
—comb.	142	13.0	126	11.5	133	12.2	115	10.5	143	13.1	149	13.6	106	9.7	128	11.7
Other —alone	101	9.2	93	8.5	106	9.7	99	9.1	125	11.4	118	10.8	123	11.3	121	11.1
—comb.	252	23.1	223	20.4	244	22.3	216	19.8	298	27.3	280	25.6	261	23.9	276	25.3
Ed./Stud. Teaching	75	6.9	48	4.4	48	4.4	44	4.0	67	6.1	57	5.2	29	2.7	56	5.1
Ed./Outside Courses	31	2.8	29	2.7	32	2.9	24	2.2	26	2.4	26	2.4	23	2.1	24	2.2

*Figures in this row refer to the frequency with which a method of preparation was mentioned exclusively by respondents.

**Figures in this row refer to the frequency with which a method of preparation was mentioned in combination with other methods.

TABLE 16-C (Continued)

	Groups of Exceptional Students															
	Gifted and Talented		Mentally Retarded		Physically or Sensory Impaired		Limited English		Economically Disadvantaged		Racial/ Ethnic Minority		Adults in Retraining		Nontraditional for Their Sex	
Preparation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Stud. Teach/ Outside Courses	0	0	0	0	2	0.2	0	0	1	0.1	3	0.3	1	0.1	3	0.3
Ed./Stud. Teach/ Outside Courses	17	1.6	15	1.4	15	1.4	10	0.9	13	1.2	13	1.2	6	0.5	14	1.3
Ed./Other	52	4.8	50	4.6	60	5.5	45	4.1	62	5.7	54	4.9	60	5.5	56	5.1
Stud. Teach/Other	9	0.8	8	0.7	6	0.5	9	0.8	13	1.2	11	1.0	8	0.7	13	1.2
Ed./Stud. Teach/Other	35	3.2	28	2.6	26	2.4	17	1.6	34	3.1	30	2.7	19	1.7	33	3.0
Outside Courses/Other	11	1.0	9	0.8	14	1.3	14	1.3	12	1.1	22	2.0	11	1.0	10	0.9
Ed./Outside Courses/Othe	22	2.0	18	1.6	15	1.4	17	1.6	29	2.7	22	2.0	26	2.4	21	1.9
Stud. Teach/Outside Courses/Other	2	0.2	3	0.3	2	0.2	2	0.2	5	0.5	3	0.3	2	0.2	3	0.3
Ed./Stud. Teach/Outside Courses/Other	20	1.8	14	1.3	15	1.4	13	1.2	18	1.6	20	1.8	12	1.1	19	1.7

APPENDIX D

Table (1-D) that Reports Results of Research Consumerism Items (Survey Section IV)

TABLE 1-D

NUMBER AND PERCENTAGE OF RESPONDENTS WHO HAVE USED RESEARCH JOURNALS AND ERIC, AND RESPONDENTS' JUDGMENT, AS TO HOW USEFUL THEY FOUND THE JOURNALS (N = 1,092)

	Used Them ?						How Useful ?									
	Yes		No		Missing		Never Used		Not Useful		Useful		Very Useful		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Vocational education research journals/ periodicals	928	85.0	162	14.8	2	0.2	151	13.8	68	6.2	644	59.0	225	20.6	4	0.4
ERIC*	434	39.7	656	60.1	2	0.2	-	-	-	-	-	-	-	-	-	-

*Educational Resources Information Center